STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

IN-DEPTH INSPECTION AND CONDITION REPORT

GENERAL SULLIVAN BRIDGE - DOVER 200/023
OVER THE LITTLE BAY

NEWINGTON-DOVER, 11238S

May 2014 Inspection
and
June 2016 Inspection

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EXECUTIVE SUMMARY

VHB, in conjunction with HDR Engineering, Inc. completed an inspection and condition assessment of the General Sullivan Bridge in 2014 and 2016 for the New Hampshire Department of Transportation. This report includes a description of the inspection methods, condition findings, and recommendations for future inspection and other actions.

The General Sullivan Bridge, which opened in 1934, currently carries pedestrian and bicycle traffic over Little Bay, between the town of Newington and the city of Dover, NH. The bridge consists of nine spans; a three-span continuous through arch-truss main span and six (6) approach spans. The approach spans consist of a simple-span deck truss and a two-span continuous deck truss both north and south of the main spans. The total bridge length is 1,528 feet. The main span over the navigational channel is 275 feet and the two back-spans are 200 feet each. The approach spans range in length from 102 to 163 feet. The roadway is 24 feet wide curb to curb with variable width sidewalks on each side. Chain link fencing (installed in 2015) limits pedestrian and bicycle traffic to the middle 10 to 15 feet of the deck along the bridge. The concrete deck is supported by five (5) steel stringers, which are supported by floorbeams.

Inspectors accessed the bridge superstructure from above using rope access methods and from below using specialized boats and all-terrain vehicles with hydraulic booms and man baskets. In 2014, all fracture critical members were inspected “hands-on”. Inspectors compared as-built configurations with record fabrication drawings and obtained measurements with calipers, ultrasonic thickness gauges, and other equipment for subsequent structural analyses and load ratings completed in 2014. Concrete was sounded using hammers and pavement thickness was determined by curb reveal measurements and drilled holes.

The deck is in serious condition. There is widespread spalling, delamination, and exposed reinforcing steel on the underside of the deck. There are several imminent spalls where portions of the concrete deck on the approach spans could dislodge and fall. Other elements including the wearing surface, sidewalks, deck joints, and railings are also in very poor condition with significant deterioration.

The superstructure is in critical condition. The primary truss members and gussets are generally in fair to poor condition except for Span 7 that is in critical condition. The bottom chord of both trusses in this span near Pier 6 have more than 50% section loss. There are numerous exterior stringers with severe section loss and no capacity to support loads. Interior stringers exhibit minor corrosion and section loss. Floorbeams are generally in fair condition except at the ends where they are in poor to serious condition. Two floorbeams are in critical condition with perforations in the web and heavy section loss in the flanges. Lateral bracing and sway bracing are generally in fair to poor condition except at Spans 4 and 6 where lateral bracing is in critical condition based on corrosion and section losses. The bearings are generally in fair condition except for anchor bolts that are bent or significantly corroded.

The substructure is in fair condition. The stub abutment in Dover is in good condition and the vault-type abutment in Newington is in fair condition with some cracks and areas of delamination. The piers are generally in fair condition with visible mortar loss between the granite facing stones and the granite cap stones.

Elements of the truss and floorsystem with severe corrosion and section loss documented in 2014 exhibited significant changes in 2016 with widespread increases in section loss, and some elements with much greater section loss and new holes. Additional locations of imminent spalls on the underside of the concrete deck were also observed in 2016. Other bridge components with light to moderate corrosion showed only minor change in condition over these two years.

Based on the inspection and condition findings from 2014 and 2016, the VHB/HDR team recommend the following:

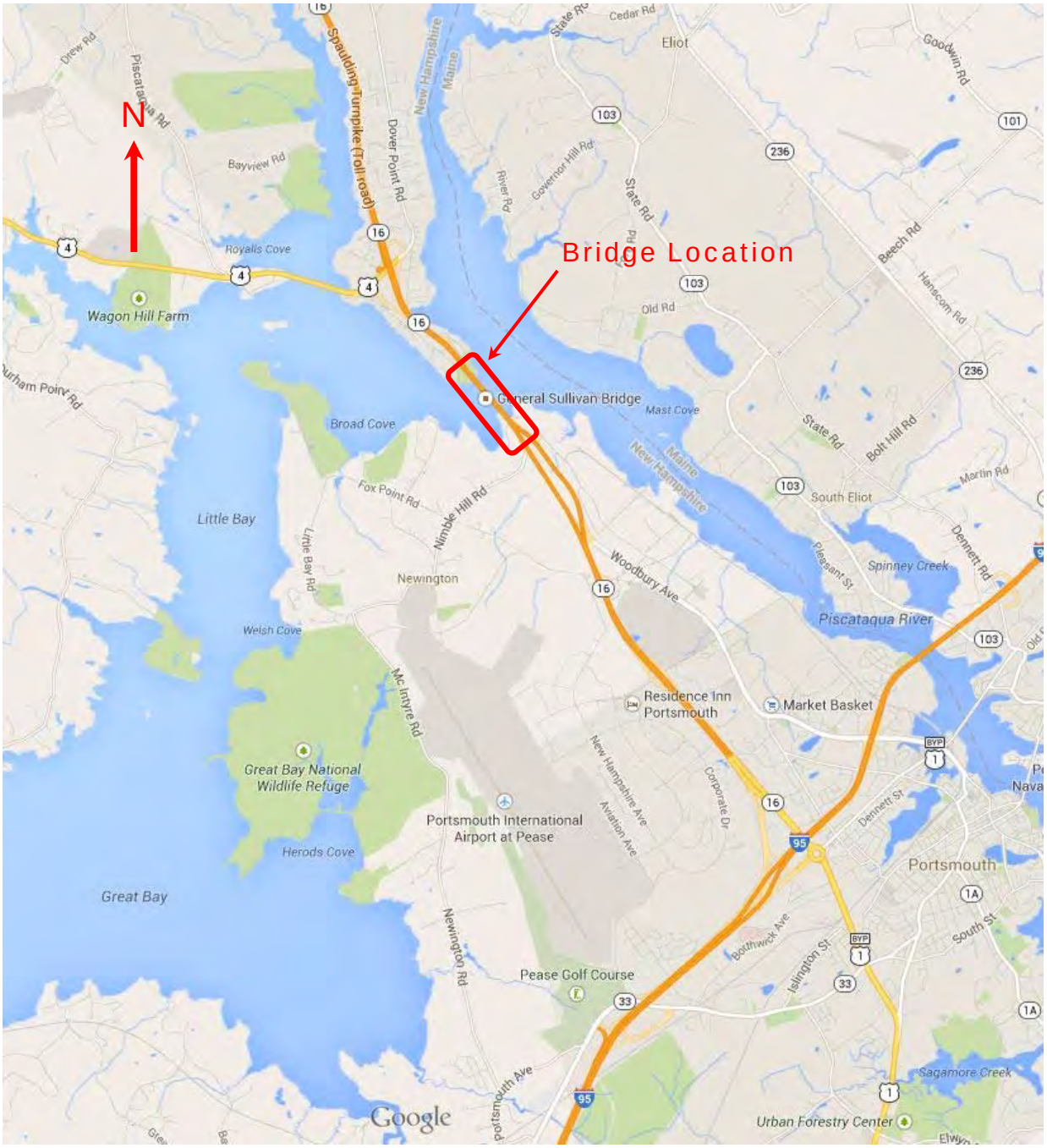
- Conduct special inspections of the bridge every six months with “hands on” methods at the bottom chord in Span 7 near Pier 6. The inspection should also include a general assessment of the deck and exterior portions of the floorsystem to monitor condition decline and evaluate needs for shielding, maintenance activities, or potentially bridge closure. Inspectors should look for distress (new cracks, crushing) or movement (sag, twist) in the deck and superstructure as components continue to deteriorate.

- Develop and implement a severe storm event plan that includes monitoring ice and/or snow accumulation after extreme events with provisions to temporarily close the bridge when these environmental loads may be significant.

- Shore or provide a catchment for two exterior stringers (S1) located at Panel 6 of Span 7 and Panel 3’ of Span 6 to ensure the stringers remain secured to the bridge.

- Consider warning signs for watercraft alerting to the potential of falling debris under the approach spans and to use the navigational channel.

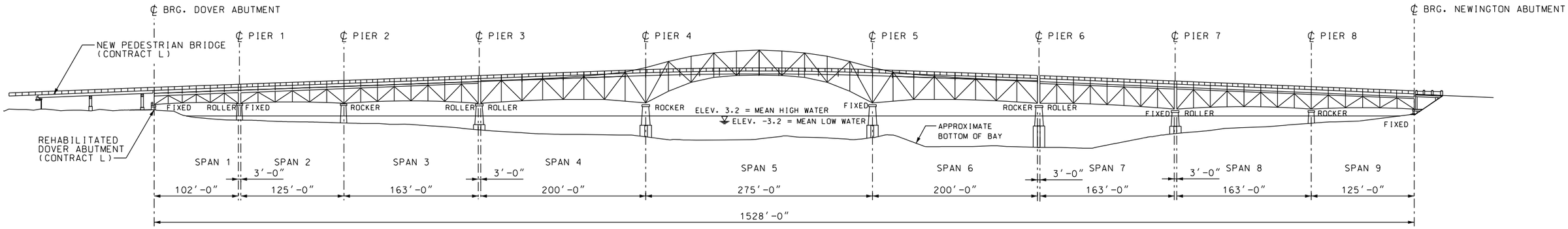
LOCATION MAP



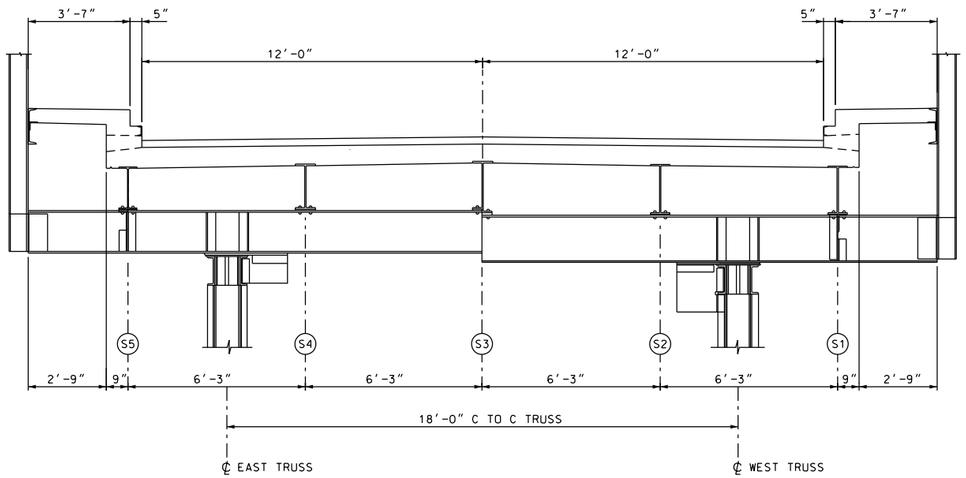
DESCRIPTION OF BRIDGE

Year Built:	**1934**
Original Design Loading:	**AASHO H-15**
Bridge Type:	**Deck/Through Arch Truss**
Skew:	**0°**
Bridge Length:	**1528'-0" (bearing to bearing)**
Spans:	**Dover Approach:** 1 single span deck truss (Span 1) 1 two-span continuous deck truss (Spans 2 & 3) **Main Spans:** 1 three span continuous deck/through arch truss (Spans 4, 5, & 6) **Newington Approach:** 1 single span deck truss (Span 7) 1 two-span continuous deck truss (Spans 8 & 9)
Span Lengths:	**Span 1:** 102'-0" **Spans 2 & 9:** 125'-0" **Spans 3, 7, & 8:** 163'-0" **Spans 4 & 6:** 200'-0" **Span 5:** 275'-0"
Width of Bridge Deck:	**32'-0" (rail to rail) with a 24'-0" roadway width and two 4'-0" sidewalks (one each side of the bridge).**
Roadway Surface:	**Reinforced concrete deck (7" structural deck and 1½" integral concrete wearing surface with a hot mixed asphalt wearing course (2½"-5½" thick).**
Sidewalk Surface:	**Reinforced concrete**
Bridge Rail:	**Double steel bridge rail with steel verticals, attached to double channel posts.**
Superstructure:	**A three span continuous arch truss consisting of riveted built-up steel members, riveted steel floor beams, and rolled I-shape stringers.** **The approach spans consist of riveted built-up members, rolled I-shape floorbeams, and rolled I-shape stringers.**
Utilities:	**Navigation span lighting conduit** **Roadway lighting (abandoned)** **Gas line (abandoned)**
Bearings:	**10 fixed bearings** **12 multi-roller expansion bearings** **6 multi-rocker expansion bearings**
Substructure:	**2 reinforced concrete abutments** **8 mass concrete piers with granite block fascia and caps**

GENERAL SULLIVAN BRIDGE
INSPECTION REPORT



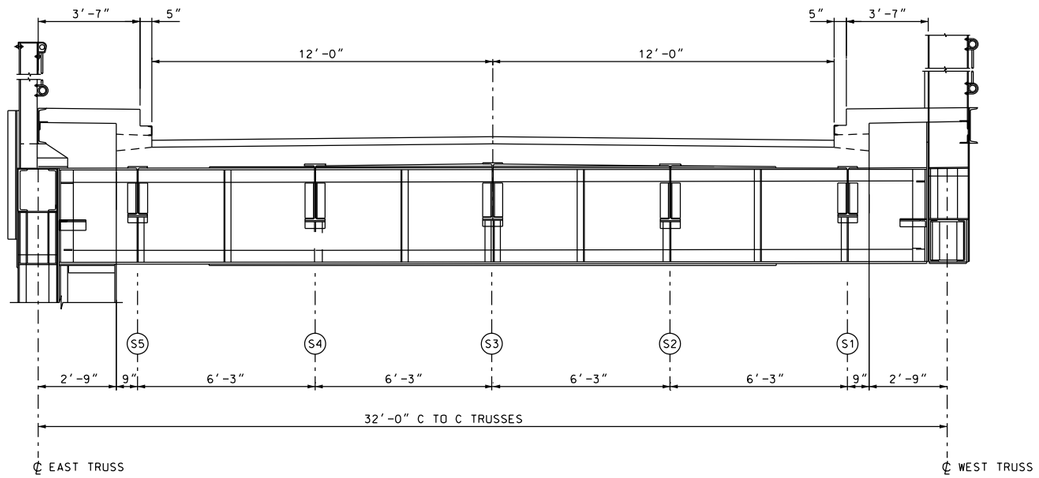
WEST ELEVATION



HALF SECTION
SPAN 1

HALF SECTION
SPANS 2, 3, 7, 8 AND 9

TYPICAL SECTION
APPROACH SPANS (1, 2, 3, 7, 8 AND 9)
(LOOKING SOUTH)



HALF SECTION
SPANS 4 AND 6

HALF SECTION
SPAN 5

TYPICAL SECTION
MAIN SPANS (4, 5, 6)
(LOOKING SOUTH)

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN NEWINGTON-DOVER BRIDGE NO. 200/203 STATE PROJECT 11238S

LOCATION GENERAL SULLIVAN BRIDGE

ELEVATION AND TYPICAL SECTIONS

BRIDGE SHEET OF

REVISIONS AFTER PROPOSAL		BY	DATE		BY	DATE
		DESIGNED			CHECKED	
		DRAWN			CHECKED	
		QUANTITIES			CHECKED	
		ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO. 3	TOTAL SHEETS
		REV. DATE				

FILE NUMBER

SFILES

Introduction

Vanasse Hangen Brustlin, Inc. (VHB), in conjunction with HDR Engineering Inc. (HDR) performed an in-depth and fracture critical inspection of the General Sullivan Bridge for the New Hampshire Department of Transportation. We began the inspection on May 5, 2014 and completed it on May 15, 2014. (See Appendix D for 2016 Inspection and Condition Summary)

The General Sullivan Bridge carries pedestrian and bicycle traffic over Little Bay, between the town of Newington and the city of Dover, NH. The bridge, which opened in 1934, was designed for vehicular traffic and remained in service for traffic until 1984, when the adjacent bridge opened.

The bridge consists of nine spans, a three-span continuous through arch-truss main span with six (6) approach spans. The approach spans consist of a simple-span deck truss and a two-span continuous deck truss both north and south of the main spans. The total bridge length is 1,528'-0"; the main span is 275'-0" and the two backspans are 200' each. The approach spans range in length from 102' to 163'. The roadway is 24' wide curb to curb. The sidewalk on the through-truss span is 2'-9 1/4" wide with a 5" curb, and the sidewalk on the approach spans is 3'-7" wide with a 5" curb. The deck is supported by five steel stringers, which are supported by floorbeams. The main span, a three-span arch truss, has a framed floor system, with stringers framed into floorbeam webs, and floorbeams framed into the truss. The floor system of the approach deck truss spans is stacked, the stringers sit atop the floorbeams, and the floorbeams sit atop the truss. In all spans, deck drains are formed voids in the sidewalk curb, that discharge onto the exterior stringers of the floor system.

The spans are numbered 1 through 9, north to south to match original plans. (Span numbering of adjacent Little Bay Bridges is south to north.) Span Truss panel points and floorbeams are numbered from north to south in spans 1-5 and 7 and then south to north in spans 6, 8, and 9. Stringers are numbered west to east. Spans 2-3 and Spans 8-9 are continuous, so panel numbering starts with 0, and is continuous across both spans, ending at Panel Point 14. Spans 4, 5 and 6 are continuous and symmetrical about midspan of Span 5. Numbering for these spans begins at Panel Point 0 at the north end, and ends at Panel Point 0' at the south end, with the numbering being symmetrical about Panel Point 13, at Span 5 midspan.

Inspection Methods

We performed an in-depth inspection of the General Sullivan Bridge, with all fracture critical members inspected hands-on. We primarily removed laminar rust with hand tools, and cleaned a representative sample of steel members with pneumatic tools. Hand measurements were taken with calipers, rulers, tape measures and ultrasonic thickness gauges. Concrete was sounded using hammers. We also drilled holes in the asphalt wearing surface to measure pavement thicknesses.

We used multiple access methods in order to perform the inspection. We inspected Spans 1 and 2 using a Tracker, a proprietary vehicle designed by Harcon Corp, which is a treaded all-terrain vehicle with a 44' working height. Spans 3, 7, 8 and 9 were inspected with a Bucket Boat, another proprietary vehicle by Harcon Corp. The bucket boat is a 30' by 18' boat with hydraulic pontoons and a 65' working height. See Photo M.1 (Appendix B). Each inspection team included a bridge inspection team leader and a bridge inspector. Spans 4, 5 and 6 were inspected using industrial rope access. See Photo M.2. Our rope access team included a bridge inspection team leader, a bridge inspector, a rope access technician and two rope access supervisors. All rope access was performed in accordance with standards set forth by the Society of Professional Rope Access Technicians (SPRAT). We inspected Spans 3 and 7 using a

combination of the bucket boat and rope access methods. The Newington abutment was inspected with a ladder. The top side of the deck and the bridge railings were inspected by inspectors on foot.

Recommendations (2014)

After review of our detailed inspection information, the VHB/HDR team recommends the following:

- Restrict access to outside of deck: Portions of the deck which are supported by the exterior stringers should be restricted from public access. This would require installing fencing, or another lightweight barrier, on the deck at the S2 and S4 stringer lines, the full length of the bridge. *(Completed by NHDOT in 2015)*

- Span 7 bottom chord inspections: The Span 7 Truss Bottom Chord L0L1 (east and west trusses) should be inspected at 6-month intervals. The east truss member has severe deterioration and has previous welded repairs that have also sustained advanced deterioration. The west truss member has advancing deterioration and should also be inspected at 6-month intervals.

- Monitor bottom of deck: There are delaminations and spalls throughout the underside of the deck. The entire bottom of deck should be viewed at regular intervals to assess if the delaminations are imminent. The Department should consider removing loose concrete if deemed necessary.

Bridge Condition (2014)

Item 58 Deck – Serious Condition (3)

Deck, Wearing Surface, Sidewalk, Deck Joints, Railings, Drainage, etc.

The deck is in serious condition. It exhibits spalling widespread, with section loss of rebar and map cracking throughout. Spalling is typically most severe at the east and west edges of the deck, at drain locations, full length. The rebar at the deck end exhibits up to 100% section loss at these locations. Concrete pedestals supporting the sidewalk (between deck drains) also exhibited spalling and deterioration. See Photo D.1 (Appendix B). Spalls are located randomly throughout the underside of the deck; the largest spalls are 5'-6" by 6' in size, with depths to 3". See Photo D.2. Smaller spalls were found to be up to 4" deep. A number of imminent spalls were found throughout the bridge. We define "imminent" with regard to these spalls as a spall that could completely dislodge from the deck underside at any time. These spalls have limited connection to the deck underside. While none were located above the navigable channel, they may pose a hazard to boaters below. These imminent spalls were found to be up to 6' in size. These imminent spalls were found at the following locations:

- Span 3, Mid-panel between Floorbeams 11 and 12, at Stringer 5 - 6'x3'
- Span 3, Mid-panel between Floorbeams 13 and 14, at Stringer 5 - 6'x3'
- Span 4, South of Floorbeam 4, at Stringer 5 - 4'x 8'
- Span 4, North of Floorbeam 7, at Stringer 5 - 4'x6'
- Span 7, Mid-panel between Floorbeams 5 and 6, at Stringer 5 – 3'x3'
- Span 9, Mid-panel between Floorbeams 1 and 0, at Stringer 4 – 4'x5'

There are delamination and spalls throughout the bridge. The above listed locations are where large pieces of concrete were visibly loose and hanging from the deck during our May 2014 inspection. Additional locations of spalls and delaminations that may dislodge from the deck bottom should be anticipated in the future.

The bituminous wearing surface of the bridge deck has been patched and repaired numerous times. The wearing surface ranges in thickness from 2 1/2" to 5 1/2". There is cracking of the wearing surface throughout the bridge with vegetation growth adjacent to the gutter line. See Photo D.3 and D.4.

Shallow spalls to 1" were found on the sidewalk surface throughout the bridge. Spalls and cracking were also found at the curb randomly throughout the bridge. The east curb in Span 1 has a large area of spalling where the channel member has separated from the curb and large cracks have formed. See Photo D.5. The west curb in Span 6, near mid-span, exhibits spalling and sagging, with spalls in the concrete pedestals supporting the sidewalk (between deck drains). See Photo D.6.

The deck joint seals are typically failed, with the exception for the joint at Pier 7. See Photo D.7. The armored joints at sidewalks exhibit rusting throughout, and prying to 3/4" at the east sidewalk at the Pier 3 and Pier 6 joints and the west sidewalk at the Pier 3 joint.

The lower bridge railing has perforations due to corrosion, especially where it connects to posts. Support posts for the railing have section loss along the interface with the deck, and along the interface at the floorbeams. See Photo D.8 and D.9.

The steel fascia bracket at the sidewalk end typically has 1/8" section loss at interfaces with railing posts, with more advanced section loss and perforations at some locations. See Photo D.10.

Item 59 Superstructure – Critical Condition (2)

Stringers

Each section of deck system consists of five rolled W-beam stringers spanning between two floorbeams. Stringer sizes range from W18x47 and W20x60 in Span 1, W21x55 and W21x67 in Spans 2,3, and 7 through 9, W21x62 and W24x74 in Spans 4 and 6, and W21x73 and W24x84 in Span 5. Generally, the exterior stringers are in far worse condition than the interior stringers due to the open deck drain detail directly above. Typically, exterior stringers have experienced heavy corrosion and perforations around the connection plates and along the top and bottom of the web. There are also heavy delaminations along the bottom flanges and moderate delaminations along the top flanges of exterior stringers. Photo F.1 (Appendix B) shows the typical exterior stringer condition.

Typically, the interior stringers only exhibit minor losses with sporadic areas of rust and paint failures throughout. This condition is amplified for interior stringers located directly below deck joints. Photo F.2 shows the typical interior stringer condition. For specific losses and defects see the Stringer Condition tables in Appendix C.

Critical stringers have been denoted with a "†" symbol on the Stringer Condition tables in Appendix C. Stingers marked as critical have either experienced heavy loss in the top or bottom flange at mid-span (>40%) or have large areas of perforation and loss in the web around the floorbeam connections. See Photos F.3, F.4, and F.5. A total of thirteen exterior stringers have experienced web buckling as a result of heavy web losses. These stringers are found in Spans 4 through 8. Photo F.6 shows a stringer with a buckled web.

Critical Stringers									
Span #	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
# of Critical	5	4	1	2	1	4	7	6	4

Floorbeams

Stringers are supported by a series of floorbeams, which provide the connection between deck system and truss. The floorbeams in Span 2, 3, and 7 through 9 are W20x80 beams while Span 1 floorbeams are W18x86 beams. In Spans 4 through 6 the floorbeams are built-up members consisting of a 40" x 3/8" web plate, four L6x6x5/8 members and two 13" x 1/2" cover plates.

In the approach spans, the portion of floorbeam between the two trusses is generally in fair condition and the cantilevered end portions are generally in poor to serious condition. Cantilevered ends of the floorbeams are experiencing heavy rust, section loss, and some perforations along the bottom of the web. Heavy delamination and section loss in the top and bottom flanges of cantilevered portions is also common. Photo F.7 (Appendix B) shows the typical losses for the exterior section of floorbeams. For specific losses and defects see the Floorbeam Condition tables in Appendix C. Losses noted on cantilevered ends of floorbeams are only reported from truss bearing to the exterior stringer. The section of floorbeam from exterior stringer to end of floorbeam experiences little stress and is considered "non-critical". (See sketch in Floorbeam Condition tables.) The interior portions of the approach span floorbeams were generally in fair condition with some minor losses, rust, and paint failure throughout each portion. Photo F.2 shows the typical condition for the interior portion of the floorbeams.

Members directly below open deck joints exhibit advanced losses. Photo F.8 shows the Span 8 floorbeam directly below the Pier 7 deck joint.

In Spans 4, 5 and 6, the portion of floorbeam between the exterior stringers are generally in fair to satisfactory condition. The portion of the floorbeams spanning from the exterior stringer to the floorbeam end is in generally serious condition. The floorbeam ends have section loss and/or perforations in the web, and delamination with significant section loss to both the top and bottom flanges. Perforations typically occur on the web at interfaces with the stringer connection, and along the bottom flange angle. See Photo F.9. Web stiffeners and adjacent floorbeam ends typically have severe deterioration with up to 100% section loss at the interface with the bottom flange. See Photo F.10. Mid-span of the floorbeams typically has paint failure and surface corrosion on flanges, with isolated areas of minor section loss to 1/16" on some floorbeams.

Critical floorbeams have been denoted with a "†" symbol on the Floorbeam Condition tables in Appendix C. Floorbeams marked as critical have experienced large areas of perforation in the web coupled with heavy flange loss in critical locations. Photo F.8 shows a floorbeam in critical condition. Although not a critical defect, it is noted that the floorbeams in Span 2 all appear racked five to ten degrees to the north. Span 9 exhibits a similar condition but in the southerly direction. Photo F.11 displays the racked floorbeams in Span 2.

Critical Floorbeams									
Span #	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
# of Critical	-	-	1	-	-	-	-	1	-

Truss and Gusset Plates

The deck system is supported by two trusses (east and west). Span 1 and Span 7 are simply supported, single span trusses while Spans 2 and 3 and 8 and 9 are continuous two span trusses. Spans 4, 5, and 6 are a continuous three span truss system. Truss members consist of either two built-up rolled steel channels ranging from 12" to 18" in height or four built-up angles 20" in total height. The channels and angles are laterally braced with either cover plates or lacing bars on the top and bottom flanges and some members are reinforced with additional web plates. In Spans 1 through 3 and 7 through 9, the channels are facing outwards while in Spans 4 through 6 the channels are facing inwards. In Spans 1 through 3 and 7 through 9, gusset plates range from 3/8" to 3/4" in thickness, while the gusset plates in Spans 4 through 6 range from 3/4" to 7/8" in thickness. Gusset plates are stiffened by a diaphragm between the inner and outer plate and gusset plates at bearing locations are typically reinforced with one or two additional plates. All connections are riveted, with the exception of a single welded retrofit on the eastern bottom chord of Span 7.

The most prevalent section loss for truss members is across the top and bottom flanges at lacing bar locations and losses range from 1/8" to 1/4" deep. Losses in the web, typically along the top of the bottom flange, are also common. Photo T.1 and photo T.2 (Appendix B) display the typical losses seen on truss members. The heaviest losses are observed in bottom chord and vertical members located below open deck joints. Specific losses and defects on individual members are reported in the Member Condition tables in Appendix C. Most members have losses and defects at several locations, however only the controlling locations are reported in Appendix C.

In Span 1, the truss members are in fair to poor condition. All of the channels have 15% or less total section loss, the majority of which are less than 10%. Spans 2 and 3 are in a similar condition to Span 1,

but with three locations having a net section loss greater than 15%. See Photo T.3. Specifically, the vertical members, on both trusses, at Pier 1 (L0U0) have significant losses and holes in the web resulting in up to 45% total loss per individual channel. Diagonal member L8U9 in Spans 3 and 8 was fabricated without cover plates. This was an error from the original plans and was confirmed in the inspection.

Spans 4 through 6 truss members located below the bridge deck and railing range from poor to fair condition. Truss members above the bridge railing were generally in satisfactory condition. Truss members located above the deck, in Span 5, typically exhibit paint failure and surface corrosion. There are some isolated areas with up to 1/16" section loss. Span 5 truss verticals and diagonals exhibit section losses along their connection to the bridge railing, with section losses up to 3/16". See Photo D.9.

Truss members located below the deck in Spans 4 through 6 typically exhibit section loss at locations where plates interface with each other. Truss member webs typically have section loss up to 1/8" along interfaces with gusset plates. See Photo T.5 and T.6. There are isolated locations where section loss is 1/4" at interfaces with lacing bars and batten plates. Most flanges have 1/8" section loss at these locations. A number of truss bottom chords exhibit random pitting to 1/8" on the interior web over the full length of the member. See Photo T.7. Additionally, there are a number of locations where the inside faces of the bottom chord webs exhibit section loss at the panel connections. See Photo T.8. This section loss typically does not coincide with section losses found on the outside faces of the webs. See Photo T.9.

Bottom chords of Spans 4 and 6 have up to 1/4" pack rust between truss bottom chords and gusset plates at many locations. See Photo T.6. Bottom chords from Node L6 to L10 (and L10' to L6') have cover plates on the webs that typically have up to 1/2" pack rust between the channel and the cover plate. See Photo T.10.

Lacing bars and batten plates on chords and diagonals have section loss throughout, and pack rust between the bars and the truss member flanges in many locations. See photo T.11 and T.12. There are isolated locations where lacing bars and batten plates have corrosion holes. With the exception of Span 5 West Truss L9U9, the maximum perforation diameter is 4 1/2". See Photo T.13. Span 5 West L9U9 was found to have two holes in the interior web with a total width of 7" at the web's interface with the floorbeam top flange.

Span 7 is in the worst condition of all truss spans. Between both the east and west trusses, five members have between 15% and 30% total loss and seven members have over 30% total loss. The bottom chords of both trusses adjacent to Pier 6 (L0L1) are in serious condition. At this location on the west truss both channels have approximately 50% section loss due to several large web holes coupled with heavy losses in the top and bottom flange. At this location on the east truss, there is a retrofit plate poorly welded to the web of the outer channel. Around this plate are several large holes and heavy losses in the bottom flange resulting in over 65% total section loss. Photo T.14 and photo T.15 illustrate the losses to both trusses a L0L1.

Spans 8 and 9 are in a similar condition to Spans 2 and 3 with the majority of the total losses less than 10%. The vertical and bottom chord members at or adjacent to Pier 7 and at the Newington abutment have significant losses and holes in the web resulting in 15% to 50% total section loss at those locations. Photo T.16 shows a large loss in the web of the vertical member at Pier 7.

Typically, gusset plates have losses along the top of the bottom chord and diagonal members and up and down along the edges of the vertical members. These losses are generally 1/16" to 1/4" deep and extend the full length of the connection. Another common loss is on the interior face of the gusset plates along

the top of the diaphragms or reinforcing plate. These losses are also about a 1/16" to 1/4" deep. Gusset plates at upper panel points are typically in good condition. Gusset plates in Spans 4 through 6 frequently have section loss to 1/8" deep along the connection to the lateral bracing gusset plates. Photos T.17 through T.21 show typical conditions and losses at gusset plates.

Lateral and Sway Bracing

The lateral bracing is in overall fair to poor condition in the approach spans, and ranges from poor to critical condition in Spans 4 through 6. In the approach spans, the top lateral bracing is generally in better condition than the bottom lateral bracing. Typically, areas of pack rust were observed between the double angles on the bottom bracing. See Photo B.1 (Appendix B). There are areas of moderate to heavy corrosion and pitting on lateral plates, at connection to panel points. See Photo B.2. In several locations, plates exhibited perforations or prying at the connection between the bottom struts and bottom chords due to heavy corrosion and/or pack rust.

In the approach spans, the sway bracing is in fair condition. In several locations, prying and distortion due to pack rust was observed between angle members. Several of the bottom struts have light to moderate pitting on the top and bottom flanges of braced angle members. Heavy loss and occasional perforation were observed on several of the sway bracing gusset plates. The conditions of the lower struts and the bracing located below deck joints is more severe. See Photo B.3

In Spans 4 through 6 the lateral bracing gusset plates have corrosion and section loss throughout. See Photo B.4. The top lateral bracing in Spans 4 and 6 have severe section loss with laminar corrosion and corrosion holes throughout. In some cases there are 100% losses on the plate connections. In some cases the plates are deformed. Plates with severe losses are in the following locations:

Span 4

- East Truss, South Side U0
- East Truss, North Side U1
- East Truss, South Side U1 (See Photo B.5)
- East Truss, South Side U2
- East Truss, North Side U3
- East Truss, South Side U3
- East Truss, North Side U5
- East Truss, South Side U5 – Bracing deflecting 3"
- East Truss, North Side U6
- East Truss, South Side U7

Span 6

- East Truss, North Side U0'
- East Truss, North Side U5'
- East Truss, South Side U7'
- West Truss, South Side U2'
- West Truss, South Side U6
- West Truss, North Side U7

Sway bracing and lateral bracing members typically have pack rust between the steel angles. See Photo B.6. Lateral bracing members typically have section loss where they interface with connection plates. In several locations, there are corrosion holes on the horizontal legs of lateral bracing members. Sway

frame gusset plates have section loss along the interfaces with lateral bracing struts and frame members. See Photo B.7. Several lower sway frame gusset plates have perforations along the interface with struts.

Bearings

The bearings are in overall fair condition. Generally, bearings have pitting and corrosion on the top of sole plates and angle stiffeners. Anchor bolt condition ranges from fair to critical condition, including several locations that have bent bolts or bolts with significant losses. None of the bearings appeared seized and all of the expansion bearings appeared to be operational. Photos BR.1 and BR.2 (Appendix B) display typical bearing conditions.

The Span 3 expansion bearing at Pier 3 appears to be over extended several inches to the south. This has resulted in bending of the anchor bolts and the plates around the anchor bolts, but the bearing appears to be operational. Similar conditions were found on Span 4 at Pier 3 and Span 6 at Pier 6, but to a lesser extent. See Photo BR.3.

Item 60 Substructure – Satisfactory Condition (6)

Abutments

A visual and tactile inspection was conducted to determine the condition and extent of deterioration at the abutments and wingwalls. Both the Dover and Newington abutments and Newington wingwalls are in overall satisfactory condition with very little spalling or deterioration. See Photo S.1 and S.2 (Appendix B).

Piers

A visual and tactile inspection was conducted above the water line to determine the condition and extent of deterioration at the piers. The piers are in overall satisfactory condition. Most of the piers have mortar loss between the granite blocks in the pier cap. See Photo S.3 (Appendix B). All piers have moderate to severe loss in mortar between the blocks below the waterline. See Photo S.4. Pier 7 has a crack in two blocks on the northwest face of the pier. See Photo S.5.

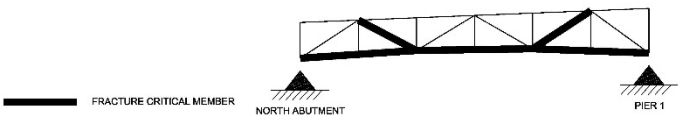
Fracture Critical Inspection (2014)

The bridge has a total of 181 fracture critical members. These members include many truss bottom chord, top chord, diagonal and vertical members, as well as every floorbeam. Rolled steel floorbeams are used on Spans 1 through 3 and 7 through 9 while riveted built-up steel floorbeams are used for Spans 4 through 6. Refer to the table below for the breakdown of fracture critical members by type.

As part of the fracture critical inspection, we identified fatigue sensitive details (FSDs) and inspected them per FHWA requirements. We recognize that this bridge carries pedestrian loading, and does not see the stress ranges nor fatigue cycles that a vehicular bridge would, however, it is important to note fatigue sensitive details for the following reasons: The FSDs are locations of concentrated stress, and identifying any cracking due to past loading is important in fracture critical inspection. Additionally, identifying fatigue sensitive details may be important in future use of this bridge, should it be rehabilitated. The predominant fatigue sensitive detail on the trusses is the base metal around riveted connections. Riveted connections are a fatigue category D detail and are used throughout the truss for nearly every connection. When subject to tension, a fatigue crack can initiate in the base metal around the rivet hole. Other fatigue sensitive details on the structure resulted from repairs. In one location a welded repair to a bottom chord member has resulted in a fatigue category E. More information about fatigue sensitive details can be found in the sections of the Fracture Critical Inspection below.

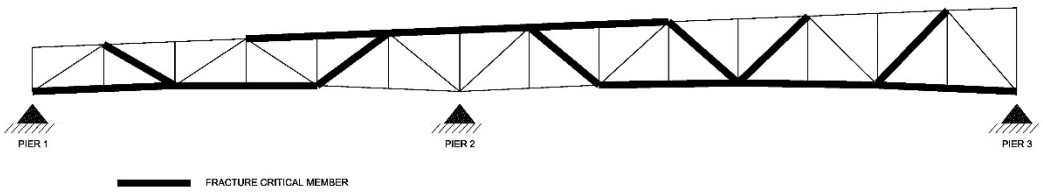
Identification of Fracture Critical Members

Type of Fracture Critical Members	Quantity
Steel Riveted Built-Up Floorbeams	25
Rolled Steel Floorbeams	46
Steel Riveted Truss Bottom Chords	50
Steel Riveted Truss Upper Chords	24
Steel Riveted Truss Diagonals	30
Steel Riveted Truss Verticals	6

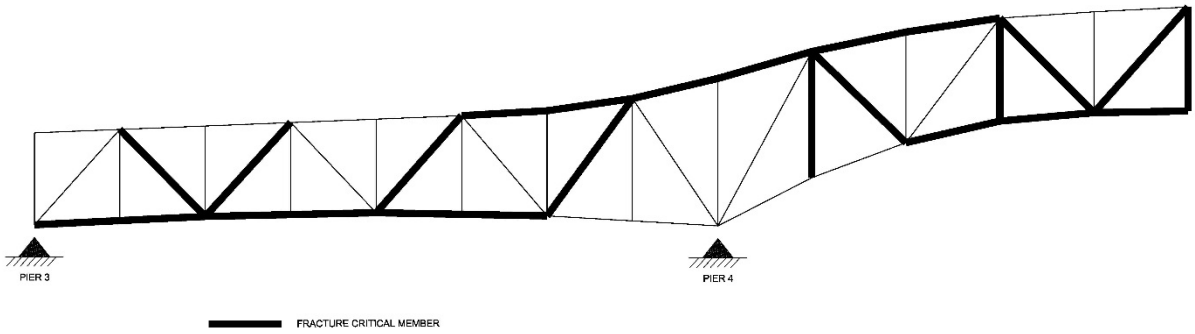


FRACTURE CRITICAL TRUSS MEMBERS - SPAN 1

Identification of Fracture Critical Members (Continued)

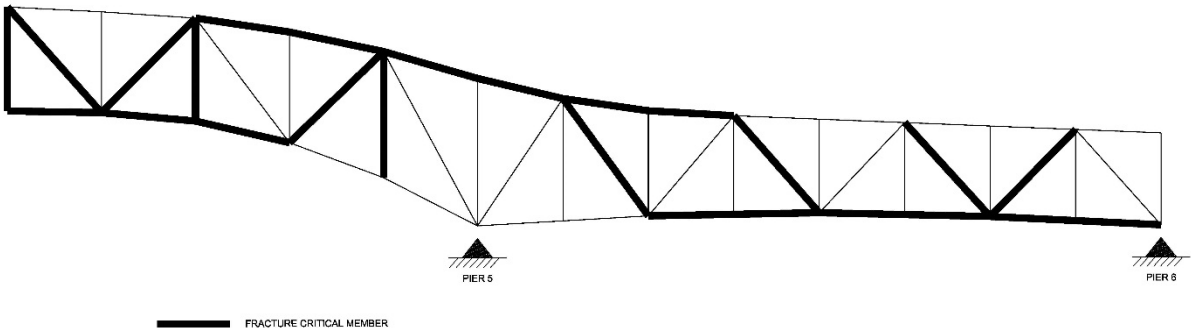


FRACTURE CRITICAL TRUSS MEMBERS - SPANS 2 & 3

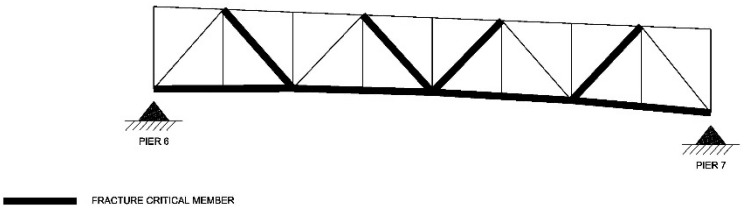


FRACTURE CRITICAL TRUSS MEMBERS - SPANS 4 & 5

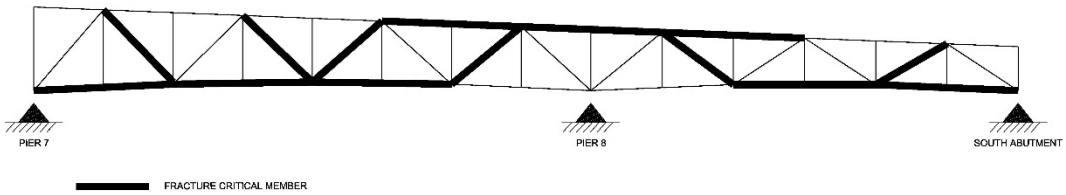
Identification of Fracture Critical Members (Continued)



FRACTURE CRITICAL TRUSS MEMBERS - SPANS 5 & 6



FRACTURE CRITICAL TRUSS MEMBERS - SPAN 7



FRACTURE CRITICAL TRUSS MEMBERS - SPANS 8 & 9

Fracture Critical Inspection Procedures

Steel Riveted Built-Up Floorbeams (Spans 4 through 6)

1. Check all rivets and bolts to determine that they are tight and that the individual components are operating as one. Check for cracked or missing bolts, rivets and rivet heads.

   Findings: Although rivet heads have section losses in many locations, all individual components are operating as one.

2. Check the member for misplaced holes or repaired holes that have been filled with weld metal. These are possible sources of fatigue cracking.

   Findings: Several misplaced holes were found; none were filled. No cracks were found propagating from these holes.

3. Check the area around the floorbeam and lateral bracing connections for cracking in the web due to out-of-plane bending.

   Findings: Floorbeams do have lateral bracing connections. There is corrosion and section loss in the floorbeam webs at the floorbeam end connections. No cracks were found in the webs due to out-of-plane bending.

4. Check the entire length of the tension flanges and web for cracking, which may have originated from corrosion, pitting, section loss, or defects in fabrication (e.g., nicks and gouges in the steel).

   Findings: There is extensive corrosion, pitting and section loss on the floorbeam webs and tension flanges. There are corrosion holes in the webs at several locations. No cracks propagating from corrosion were found.

5. Check the entire length of temporary erection welds, tack welds, welded connections not shown on the design drawings or other miscellaneous welds used in either construction or repair as these are possible sources of cracks.

   Findings: No welds are present on steel riveted built up floorbeams.

Rolled Steel Floorbeams (Spans 1 through 3 and 7 through 9)

1. Check all rivets and bolts to determine that they are tight and that the individual components are operating as one. Check for cracked or missing bolts, rivets and rivet heads.

   Findings: Although rivet heads have section losses in many locations, all rivets and riveted connections are sound.

2. Check the member for misplaced holes or repaired holes that have been filled with weld metal. These are possible sources of fatigue cracking.

   Findings: No misplaced holes were found nor repaired holes filled with weld metal.

3. Check the area around the floorbeam and lateral bracing connections for cracking in the web due to out-of-plane bending.

   Findings: Floorbeams do have lateral bracing connections. There is corrosion and section loss in the floorbeam webs and bottom flanges where the floorbeam is supported by the truss. No cracks were found in the webs due to out-of-plane bending.

4. Check the entire length of the tension flanges and web for cracking, which may have originated from corrosion, pitting, section loss, or defects in fabrication (e.g., nicks and gouges in the steel).

   Findings: There is extensive corrosion, pitting and section loss on several floorbeam webs and tension flanges. Tension regions in top and bottom flanges were inspected. There are corrosion holes in the webs at several locations. No cracks propagating from corrosion were found.

5. Check the entire length of temporary erection welds, tack welds, welded connections not shown on the design drawings or other miscellaneous welds used in either construction or repair as these are possible sources of cracks.

   Findings: No welds are present on rolled steel floorbeams.

Steel Riveted Truss Members:

1. Check each component to see that the loads are being evenly distributed between them by attempting to vibrate the member by hand, and that batten plates and lacing are tight.

   Findings: Although rivet heads have section losses in many locations, all individual components are operating as one.

2. Check carefully along the first row of rivets for cracking as the first row carries more load than succeeding rows. The first row is the row closest to the edge of the gusset plate and perpendicular to the axis of the member.

   Findings: No cracks were observed.

3. Check of nicks, gouges and tears due to the impact from passing vehicular or marine traffic. This type of damage can initiate future cracks.

   Findings: There is a 1" gouge/tear in the bottom flange of the outer channel of bottom chord member L3L4 on the east truss located approximately at midspan.

4. Observe carefully any tack welding used either in construction or repair as this is a potential source of cracks. Any tack welds should be flagged to the attention of the bridge engineer in the report for future observation and consideration in stress rating.

   Findings: There are several locations with welded repairs. L0L1 on Span 7 east truss has a welded repair plate. Welds were found to be uneven and have sustained corrosion. No cracks were observed at repair welds.

5. If any misplaced holes or holes used for reconstruction have been plug welded, check carefully for fatigue cracks.

   Findings: No plug welds are present on truss members.

Identification of Fatigue Sensitive Details (FSD)

FSD 1.5 - Open holes in members

Truss elements with open drilled holes or abandoned rivet holes. This detail is fatigue category D.

FSD 2.3 - Base metal at net section of riveted connections:

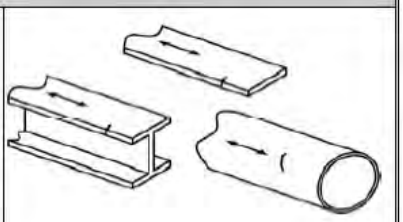
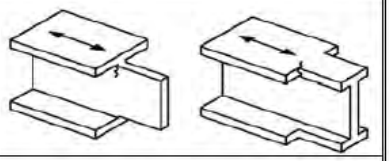
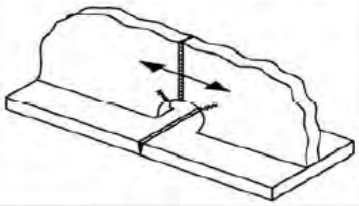
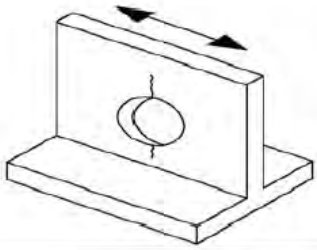
All fracture critical members. This detail is fatigue category D.

FSD 7.1 – Base metal in a longitudinally loaded component attached by groove or fillet welds parallel or transverse to the direction of primary stress where the detail incorporates no transition radius:

Welded repair plates on bottom chord of L0L1 on Span 7 east truss has longitudinally and transversely loaded fillet welds. The plate has no transition radius. It is also greater than 4 inches long and is less than 1 inch thick. This detail is Fatigue Category E.

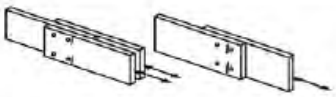
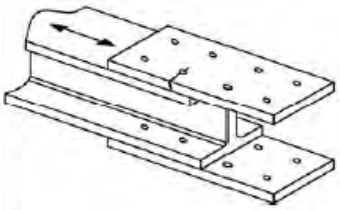
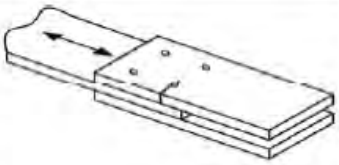
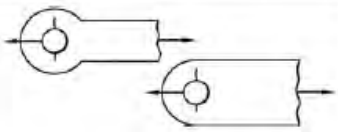
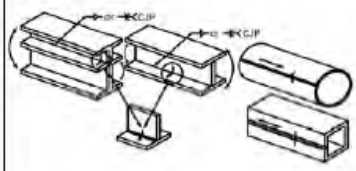
Quantity of FSD Types: 3

Identification of Fatigue Sensitive Details (FSD) (Continued)

Description	Category	Constant A (ksi^3)	Threshold $(\Delta F)_{TH}$ ksi	Potential Crack Initiation Point	Illustrative Examples
Section 1—Plain Material away from Any Welding					
1.1 Base metal, except noncoated weathering steel, with rolled or cleaned surfaces. Flame-cut edges with surface roughness value of 1,000 μ-in. or less, but without re-entrant corners.	A	250×10^8	24	Away from all welds or structural connections	
1.2 Noncoated weathering steel base metal with rolled or cleaned surfaces designed and detailed in accordance with FHWA (1989). Flame-cut edges with surface roughness value of 1,000 μ-in. or less, but without re-entrant corners.	B	120×10^8	16	Away from all welds or structural connections	
1.3 Member with re-entrant corners at copes, cuts, block-outs or other geometrical discontinuities made to the requirements of AASHTO/AWS D1.5, except weld access holes.	C	44×10^8	10	At any external edge	
1.4 Rolled cross sections with weld access holes made to the requirements of AASHTO/AWS D1.5, Article 3.2.4.	C	44×10^8	10	In the base metal at the re-entrant corner of the weld access hole	
1.5 Open holes in members (Brown et al., 2007).	D	22×10^8	7	In the net section originating at the side of the hole	

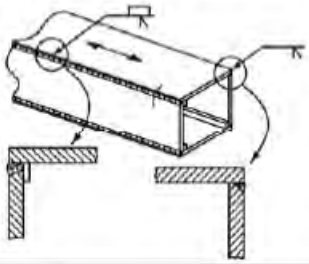
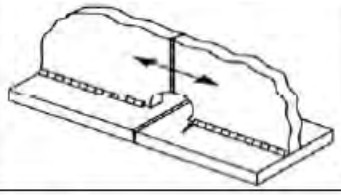
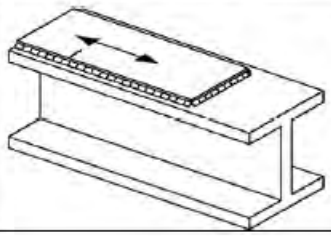
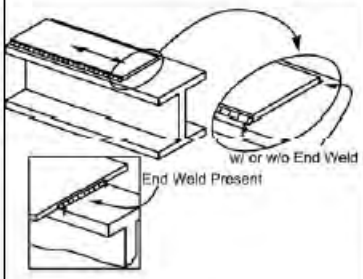
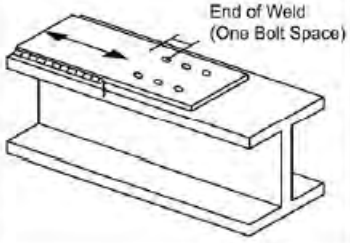
From AASHTO LRFD Bridge Specifications, 5th Edition, Table 6.6.1.2.3-1

Identification of Fatigue Sensitive Details (FSD) (Continued)

Description	Category	Constant A (ksi^3)	Threshold $(\Delta F)_{TH}$ ksi	Potential Crack Initiation Point	Illustrative Examples
Section 2—Connected Material in Mechanically Fastened Joints					
2.1 Base metal at the gross section of high-strength bolted joints designed as slip-critical connections with pre-tensioned high-strength bolts installed in holes drilled full size or subpunched and reamed to size—e.g., bolted flange and web splices and bolted stiffeners. (Note: see Condition 2.3 for bolt holes punched full size.)	B	120×10^8	16	Through the gross section near the hole	
2.2 Base metal at the net section of high-strength bolted joints designed as bearing-type connections, but fabricated and installed to all requirements for slip-critical connections with pre-tensioned high strength bolts installed in holes drilled full size or subpunched and reamed to size. (Note: see Condition 2.3 for bolt holes punched full size.)	B	120×10^8	16	In the net section originating at the side of the hole	
2.3 Base metal at the net section of all bolted connections in hot dipped galvanized members (Huhn and Valtinat, 2004); base metal at the appropriate section defined in Condition 2.1 or 2.2, as applicable, of high-strength bolted joints with pretensioned bolts installed in holes punched full size (Brown et al., 2007), and base metal at the net section of other mechanically fastened joints, except for eyebars and pin plates; e.g., joints using ASTM A307 bolts or non pretensioned high strength bolts.	D	22×10^8	7	In the net section originating at the side of the hole or through the gross section near the hole, as applicable	
2.4 Base metal at the net section of eyebar heads or pin plates (Note: for base metal in the shank of eyebars or through the gross section of pin plates, see Condition 1.1 or 1.2, as applicable).	E	11×10^8	4.5	In the net section originating at the side of the hole	
Section 3—Welded Joints Joining Components of Built-Up Members					
3.1 Base metal and weld metal in members without attachments built-up of plates or shapes connected by continuous longitudinal complete joint penetration groove welds back-gouged and welded from the second side, or by continuous fillet welds parallel to the direction of applied stress.	B	120×10^8	16	From surface or internal discontinuities in the weld away from the end of the weld	

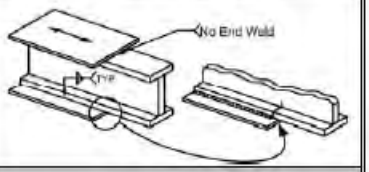
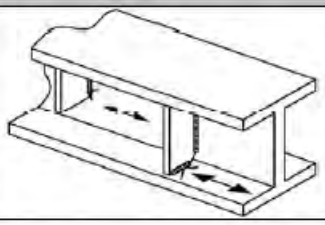
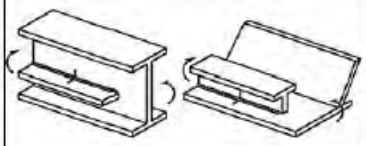
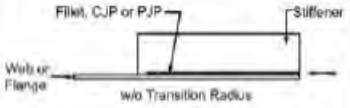
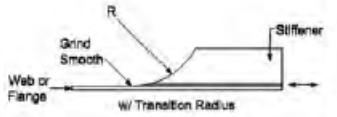
From AASHTO LRFD Bridge Specifications, 5th Edition, Table 6.6.1.2.3-1

Identification of Fatigue Sensitive Details (FSD) (Continued)

Description	Category	Constant A (ksi^3)	Threshold $(\Delta F)_{TH}$ ksi	Potential Crack Initiation Point	Illustrative Examples
3.2 Base metal and weld metal in members without attachments built-up of plates or shapes connected by continuous longitudinal complete joint penetration groove welds with backing bars not removed, or by continuous partial joint penetration groove welds parallel to the direction of applied stress.	B'	61×10^8	12	From surface or internal discontinuities in the weld, including weld attaching backing bars	
3.3 Base metal and weld metal at the termination of longitudinal welds at weld access holes made to the requirements of AASHTO/AWS D1.5, Article 3.2.4 in built-up members. (Note: does not include the flange butt splice).	D	22×10^8	7	From the weld termination into the web or flange	
3.4 Base metal and weld metal in partial length welded cover plates connected by continuous fillet welds parallel to the direction of applied stress.	B	120×10^8	16	From surface or internal discontinuities in the weld away from the end of the weld	
3.5 Base metal at the termination of partial length welded cover plates having square or tapered ends that are narrower than the flange, with or without welds across the ends, or cover plates that are wider than the flange with welds across the ends:				In the flange at the toe of the end weld or in the flange at the termination of the longitudinal weld or in the edge of the flange with wide cover plates	
Flange thickness ≤ 0.8 in.	E	11×10^8	4.5		
Flange thickness > 0.8 in.	E'	3.9×10^8	2.6		
3.6 Base metal at the termination of partial length welded cover plates with slip-critical bolted end connections satisfying the requirements of Article 6.10.12.2.3.	B	120×10^8	16	In the flange at the termination of the longitudinal weld	

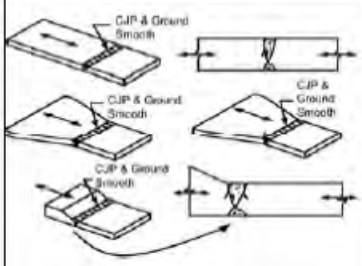
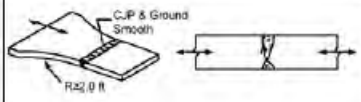
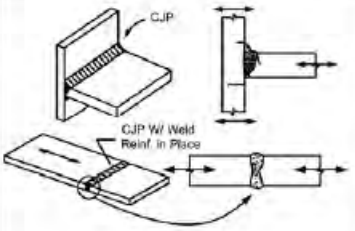
From AASHTO LRFD Bridge Specifications, 5th Edition, Table 6.6.1.2.3-1

Identification of Fatigue Sensitive Details (FSD) (Continued)

Description	Category	Constant A (ksi^3)	Threshold $(\Delta F)_{TH}$ ksi	Potential Crack Initiation Point	Illustrative Examples
3.7 Base metal at the termination of partial length welded cover plates that are wider than the flange and without welds across the ends.	E′	3.9×10^8	2.6	In the edge of the flange at the end of the cover plate weld	
Section 4—Welded Stiffener Connections					
4.1 Base metal at the toe of transverse stiffener-to-flange fillet welds and transverse stiffener-to-web fillet welds. (Note: includes similar welds on bearing stiffeners and connection plates).	C′	44×10^8	12	Initiating from the geometrical discontinuity at the toe of the fillet weld extending into the base metal	
4.2 Base metal and weld metal in longitudinal web or longitudinal box-flange stiffeners connected by continuous fillet welds parallel to the direction of applied stress.	B	120×10^8	16	From the surface or internal discontinuities in the weld away from the end of the weld	
4.3 Base metal at the termination of longitudinal stiffener-to-web or longitudinal stiffener-to-box flange welds:					
With the stiffener attached by fillet welds and with no transition radius provided at the termination:				In the primary member at the end of the weld at the weld toe	
Stiffener thickness < 1.0 in.	E	11×10^8	4.5		
Stiffener thickness ≥ 1.0 in.	E′	3.9×10^8	2.6		
With the stiffener attached by welds and with a transition radius R provided at the termination with the weld termination ground smooth:					
$R \geq 24$ in.	B	120×10^8	16	In the primary member near the point of tangency of the radius	
24 in. $> R \geq 6$ in.	C	44×10^8	10		
6 in. $> R \geq 2$ in.	D	22×10^8	7		
2 in. $> R$	E	11×10^8	4.5		

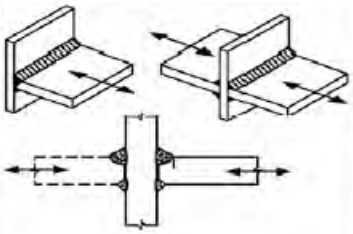
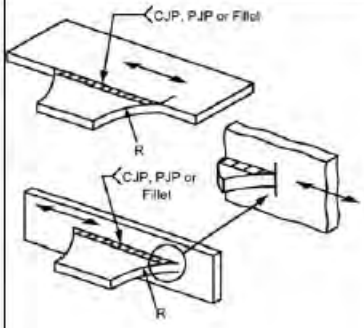
From AASHTO LRFD Bridge Specifications, 5th Edition, Table 6.6.1.2.3-1

Identification of Fatigue Sensitive Details (FSD) (Continued)

Description	Category	Constant A (ksi^3)	Threshold $(\Delta F)_{TH}$ ksi	Potential Crack Initiation Point	Illustrative Examples
Section 5—Welded Joints Transverse to the Direction of Primary Stress					
5.1 Base metal and weld metal in or adjacent to complete joint penetration groove welded butt splices, with weld soundness established by NDT and with welds ground smooth and flush parallel to the direction of stress. Transitions in thickness or width shall be made on a slope no greater than 1:2.5 (see also Figure 6.13.6.2-1).				From internal discontinuities in the filler metal or along the fusion boundary or at the start of the transition	
$F_y < 100$ ksi	B	120×10^8	16		
$F_y \geq 100$ ksi	B′	61×10^8	12		
5.2 Base metal and weld metal in or adjacent to complete joint penetration groove welded butt splices, with weld soundness established by NDT and with welds ground parallel to the direction of stress at transitions in width made on a radius of not less than 2 ft with the point of tangency at the end of the groove weld (see also Figure 6.13.6.2-1).	B	120×10^8	16	From internal discontinuities in the filler metal or discontinuities along the fusion boundary	
5.3 Base metal and weld metal in or adjacent to the toe of complete joint penetration groove welded T or corner joints, or in complete joint penetration groove welded butt splices, with or without transitions in thickness having slopes no greater than 1:2.5 when weld reinforcement is not removed. (Note: cracking in the flange of the 'T' may occur due to out-of-plane bending stresses induced by the stem).	C	44×10^8	10	From the surface discontinuity at the toe of the weld extending into the base metal or along the fusion boundary	

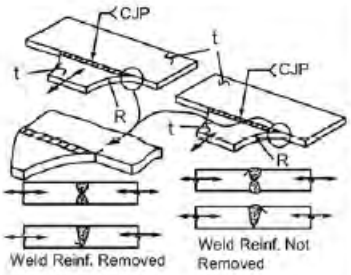
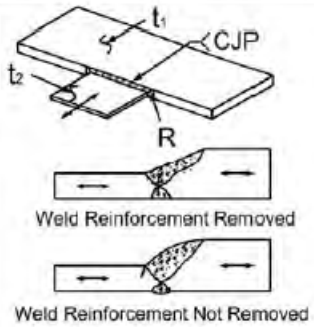
From AASHTO LRFD Bridge Specifications, 5th Edition, Table 6.6.1.2.3-1

Identification of Fatigue Sensitive Details (FSD) (Continued)

Description	Category	Constant A (ksi^3)	Threshold $(\Delta F)_{TH}$ ksi	Potential Crack Initiation Point	Illustrative Examples
5.4 Base metal and weld metal at details where loaded discontinuous plate elements are connected with a pair of fillet welds or partial joint penetration groove welds on opposite sides of the plate normal to the direction of primary stress.	C as adjusted in Eq. 6.6.1.2.5-4	44×10^8	10	Initiating from the geometrical discontinuity at the toe of the weld extending into the base metal or, initiating at the weld root subject to tension extending up and then out through the weld	
Section 6—Transversely Loaded Welded Attachments					
6.1 Base metal in a longitudinally loaded component at a transversely loaded detail (e.g. a lateral connection plate) attached by a weld parallel to the direction of primary stress and incorporating a transition radius R with the weld termination ground smooth.				Near point of tangency of the radius at the edge of the longitudinally loaded component	
R ≥ 24 in.	B	120×10^8	16		
24 in. > R ≥ 6 in.	C	44×10^8	10		
6 in. > R ≥ 2 in.	D	22×10^8	7		
2 in. > R	E	11×10^8	4.5		
(Note: Condition 6.2, 6.3 or 6.4, as applicable, shall also be checked.)					

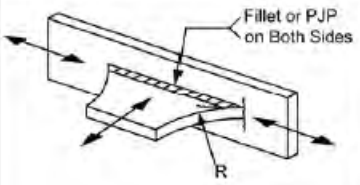
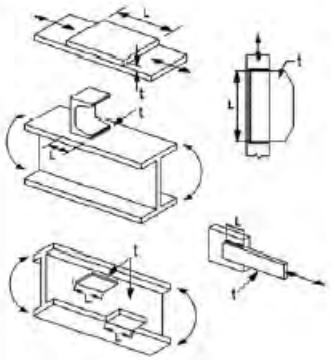
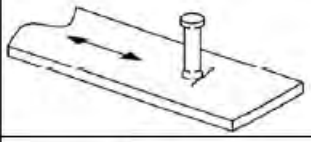
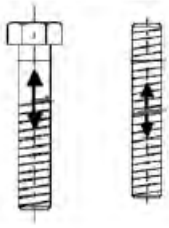
From AASHTO LRFD Bridge Specifications, 5th Edition, Table 6.6.1.2.3-1

Identification of Fatigue Sensitive Details (FSD) (Continued)

Description	Category	Constant A (ksi^3)	Threshold $(\Delta F)_{TH}$ ksi	Potential Crack Initiation Point	Illustrative Examples
6.2 Base metal in a transversely loaded detail (e.g. a lateral connection plate) attached to a longitudinally loaded component of equal thickness by a complete joint penetration groove weld parallel to the direction of primary stress and incorporating a transition radius R, with weld soundness established by NDT and with the weld termination ground smooth:					
With the weld reinforcement removed:					
$R \geq 24$ in.	B	120×10^8	16	Near points of tangency of the radius or in the weld or at the fusion boundary of the longitudinally loaded component or the transversely loaded attachment	
24 in. $> R \geq 6$ in.	C	44×10^8	10		
6 in. $> R \geq 2$ in.	D	22×10^8	7		
2 in. $> R$	E	11×10^8	4.5		
With the weld reinforcement not removed:				At the toe of the weld either along the edge of the longitudinally loaded component or the transversely loaded attachment	
$R \geq 24$ in.	C	44×10^8	10		
24 in. $> R \geq 6$ in.	C	44×10^8	10		
6 in. $> R \geq 2$ in.	D	22×10^8	7		
2 in. $> R$	E	11×10^8	4.5		
(Note: Condition 6.1 shall also be checked.)					
6.3 Base metal in a transversely loaded detail (e.g. a lateral connection plate) attached to a longitudinally loaded component of unequal thickness by a complete joint penetration groove weld parallel to the direction of primary stress and incorporating a weld transition radius R, with weld soundness established by NDT and with the weld termination ground smooth:				At the toe of the weld along the edge of the thinner plate In the weld termination of small radius weld transitions At the toe of the weld along the edge of the thinner plate	
With the weld reinforcement removed:					
R ≥ 2 in.	D	22×10^8	7		
$R < 2$ in.	E	11×10^8	4.5		
For any weld transition radius with the weld reinforcement not removed:	E	11×10^8	4.5		
(Note: Condition 6.1 shall also be checked.)					

From AASHTO LRFD Bridge Specifications, 5th Edition, Table 6.6.1.2.3-1

Identification of Fatigue Sensitive Details (FSD) (Continued)

Description	Category	Constant A (ksi^3)	Threshold $(\Delta F)_{TH}$ ksi	Potential Crack Initiation Point	Illustrative Examples
6.4 Base metal in a transversely loaded detail (e.g. a lateral connection plate) attached to a longitudinally loaded component by a fillet weld or a partial joint penetration groove weld, with the weld parallel to the direction of primary stress (Note: Condition 6.1 shall also be checked.)	See Condition 5.4				
Section 7—Longitudinally Loaded Welded Attachments					
7.1 Base metal in a longitudinally loaded component at a detail with a length L in the direction of the primary stress and a thickness t attached by groove or fillet welds parallel or transverse to the direction of primary stress where the detail incorporates no transition radius:				In the primary member at the end of the weld at the weld toe	
$L < 2$ in.	C	44×10^8	10		
2 in. $\le L \le 12t$ or 4 in	D	22×10^8	7		
$L > 12t$ or 4 in.					
$t < 1.0$ in.	E	11×10^8	4.5		
$t \ge 1.0$ in.	E'	3.9×10^8	2.6		
Section 8—Miscellaneous					
8.1 Base metal at stud-type shear connectors attached by fillet or automatic stud welding	C	44×10^8	10	At the toe of the weld in the base metal	
8.2 Nonpretensioned high-strength bolts, common bolts, threaded anchor rods and hanger rods with cut, ground or rolled threads. Use the stress range acting on the tensile stress area due to live load plus prying action when applicable.				At the root of the threads extending into the tensile stress area	
(Fatigue II) Finite Life	E'	3.9×10^8	N/A		
(Fatigue I) Infinite Life	D	N/A	7		

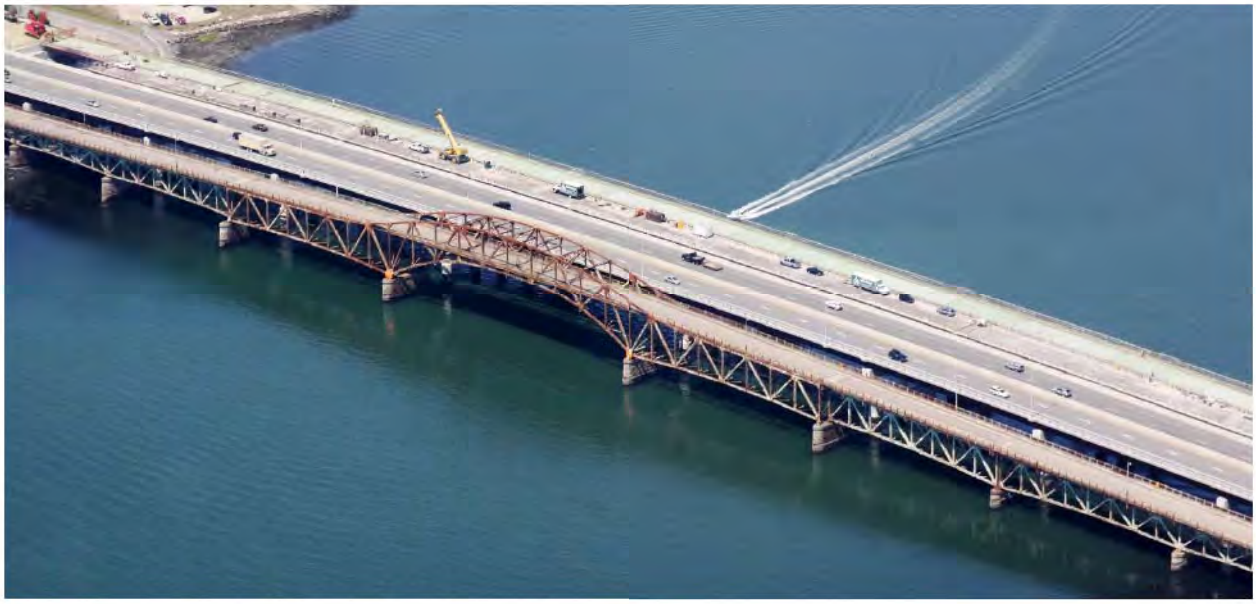
From AASHTO LRFD Bridge Specifications, 5th Edition, Table 6.6.1.2.3-1

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

APPENDIX A – BRIDGE INSPECTION REPORT FORM

GENERAL SULLIVAN BRIDGE - DOVER 200/023
OVER THE LITTLE BAY

NEWINGTON-DOVER, 11238S



Vanasse Hangen Brustlin, Inc.
2 Bedford Farms Drive
Bedford, NH 03110

HDR Engineering, Inc.
695 Atlantic Ave 2FL
Boston, MA 02111

Bridge Inspection Report

Dover 200/023

Date of Inspection: ~~03/09/2016~~ 06/16/2016
Date Report Sent: ~~4/18/2016~~
☑ Picture taken during inspection
Owner: Turnpike Bureau, NHDOT
Bridge also in: Newington

ROAD
Over
LITTLE BAY
General Sullivan Bridge

Recommended Postings:
Weight: This bridge should be posted 'Bridge Closed' and barricaded.
BARRICADES IN PLACE TO KEEP VEHICLES OFF.
Width: Not Required

☑ Weight Sign OK
☑ Width Sign OK
☑ Height Signs OK

Primary Height Sign Recommendation: *None*
Optional Centerline Height Sign Rec: *None*

Clearances: (Feet) Over: 18.00 Under: 0.00 Route: 18.00

Condition: State Redlist
Deck: 1 Closed - Failing
Superstructure: 1 Closed - Failing
Substructure: 1 Closed - Failing
Culvert: N N/A (NBI)

Sufficiency Rating: N. A.
NBI Status: Not Applicable

Structure Type and Materials:
Number of Spans Main Unit: 1
Number of Approach Spans: 8

Main Span Material and Design Type
Steel Through Truss

Approach Span Material and Design Type
Steel Deck Truss

Bridge Rail: Substandard
Rail Transition: Substandard
Bridge Approach Rail: Substandard
Approach Rail Ends: Substandard

NH Bridge Type: High Truss
Deck Type: Concrete, Cast in Place
Wearing Surface: Bituminous
Membrane: None
Deck Protection: None
Pavement thickness: Not Applicable
Curb Reveal: Not Applicable
Plan Location: SCANNED PLANS

Bridge Dimensions:
Length Maximum Span: 275.0 ft
Total Bridge Length: 1,585.0 ft
Left Curb/Sidewalk Width: 2.9 ft
Right Curb/Sidewalk Width: 2.9 ft
Width Curb to Curb: 24.0 ft
Total Bridge Width: 30.6 ft
Approach Roadway Width (W/ Shoulders): 28.0 ft
Median: No median
Bridge Skew: 0.00 °

Bridge Service:
Type of Service on Bridge: Pedestrian-bicycle
Type of Service under: Highway and Waterway
Lanes on bridge: 0
Lanes Under: 2
Year Built: 1934
Year Rebuilt: 1950
Detour Length: 18.0 mi
AADT: 0
Percent Trucks: 8 %
Year of AADT: 2003
Future AADT: 0
Year of Future AADT: 2035

Bridge Inspection Report

Dover 200/023

Federal or State Definition Bridge:	Fed. Definition Bridge
Roadway Functional Class:	Urban Local
New Hampshire Highway System and Class:	Turnpike, not Primary
Eligibility for the National Register of Historic Places:	Eligible (Historic)
Traffic Direction:	Not hwy traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry:	Not Applicable (NBI)
Underclearances:	Not Applicable (NBI)
Approach Alignment:	Equal Minimum Criteria
Structural Evaluation:	N
Channel/Channel Protection:	Minor Damage
Waterway Adequacy:	Above Desirable Criteria
Bridge Scour Critical Status:	Stable for extreme flood
Riprap Condition:	Not Applicable
Debris Present:	Not Applicable
Date of Underwater Inspection:	Nov. 2011

AASHTO CoRe Element Condition State Data:

No.	Description	Env.	Material Notes and Condition Notes
13	Concrete Deck - Unprotected, with Asphalt Pavement	Severe	*ASPHALT - POOR CONDITION, HOLLOW SOUNDING. CONCRETE - POOR CONDITION, IMMINENT FAILURE CONDITION.*
113	Painted Steel Stringer	Severe	*HEAVILY RUSTED AND HOLED IN AREAS. HEAVY SECTION LOSS. POOR CONDITION. IMMINENT FAILURE CONDITION.*
121	Painted Steel Bottom Chord (Thru Truss)	Severe	*HEAVILY RUSTED AND HOLED. HEAVY SECTION LOSS. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.*
126	Painted Steel Thru Truss (Exclude Bottom Chord)	Severe	*HEAVILY RUSTED AND HOLED. HEAVY SECTION LOSS. POOR CONDITION.*
131	Painted Steel Deck Truss	Severe	*HEAVILY RUSTED AND HOLED. HEAVY SECTION LOSS. POOR CONDITION.*
152	Painted Steel Floor Beam	Severe	*HEAVILY RUSTED AND HOLED. HEAVY SECTION LOSS. POOR CONDITION. IMMINENT FAILURE CONDITION.*
211	Other Material Pier Wall	Severe	*SEE UNDERWATER INSPECTION REPORT.*

Bridge Inspection Report

Dover 200/023

No.	Description	Env.	Material Notes and Condition Notes
215	Reinforced Concrete Abutment	Severe	*HEAVILY SPALLED WITH REBAR EXPOSED. BRIDGE SEAT - VERTICAL CRACKS AT SOUTH. NORTH - CRACKED AND HEAVILY SPALLED. BACKWALL - CRACKED AND HEAVILY SPALLED. SERIOUS CONDITION.*
234	Reinforced Concrete Cap	Severe	*HEAVILY SPALLED. POOR CONDITION.*
304	Open Expansion Joint	Severe	*SEALS FAILED.*
311	Moveable Bearing (roller, sliding, etc.)	Severe	*ROLLERS HEAVILY RUSTED WITH SECTION LOSS.*
313	Fixed Bearing	Severe	*HEAVILY RUSTED WITH SECTION LOSS.*
334	Coated Metal Bridge Railing	Severe	*** Steel Baluster *** *HEAVILY RUSTED AND HOLED. HEAVY SECTION LOSS. POOR CONDITION.*
357	Pack Rust Condition Warning Flag	Severe	*CONNECTIONS IN POOR CONDITION.*
358	Deck Cracking Condition Warning Flag	Severe	*MODERATE CRACKS.*
359	Soffit of Conc Deck or Slab Condition Warning Flag	Severe	*HEAVY SPALLING, LARGE DELAMINATIONS AND HOLED AREAS. POOR CONDITION. REBAR EXPOSED AND RUSTING. HEAVY LEAKING WITH EFFLORESCENCE AND RUST STAINS.*
363	Section Loss Condition Warning Flag	Severe	*HOLES THOUGH VERTICALS AT SOUTH ABUTMENT. SEVERAL HOLED AREAS IN SUPERSTRUCTURE AND RAIL SYSTEM.*

No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
13	Concrete Deck - Unprotected, with Asph	Severe	48,502	(SF)	0 %	0 %	0 %	0 %	100 %
113	Painted Steel Stringer	Severe	7,927	(LF)	0 %	0 %	0 %	0 %	100 %
121	Painted Steel Bottom Chord (Thru Truss	Severe	56	(LF)	0 %	0 %	0 %	0 %	100 %
126	Painted Steel Thru Truss (Exclude Botto	Severe	276	(LF)	0 %	0 %	0 %	0 %	100 %
131	Painted Steel Deck Truss	Severe	1,253	(LF)	0 %	0 %	0 %	0 %	100 %
152	Painted Steel Floor Beam	Severe	2,172	(LF)	0 %	0 %	0 %	0 %	100 %
211	Other Material Pier Wall	Severe	1,404	(LF)	0 %	0 %	0 %	100 %	
215	Reinforced Concrete Abutment	Severe	62	(LF)	0 %	0 %	0 %	100 %	
234	Reinforced Concrete Cap	Severe	1,404	(LF)	0 %	0 %	0 %	100 %	
304	Open Expansion Joint	Severe	121	(LF)	0 %	0 %	100 %		
311	Moveable Bearing (roller, sliding, etc.)	Severe	16	(EA)	0 %	0 %	100 %		

Bridge Inspection Report

Dover 200/023

No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
313	Fixed Bearing	Severe	10	(EA)	0 %	0 %	100 %		
334	Coated Metal Bridge Railing	Severe	3,169	(LF)	80 %	0 %	0 %	0 %	20 %
357	Pack Rust Condition Warning Flag	Severe	1	(EA)	0 %	0 %	0 %	100 %	
358	Deck Cracking Condition Warning Flag	Severe	1	(EA)	0 %	0 %	0 %	100 %	
359	Soffit of Conc Deck or Slab Condition W	Severe	1	(EA)	0 %	0 %	0 %	0 %	100 %
363	Section Loss Condition Warning Flag	Severe	1	(EA)	0 %	0 %	0 %	100 %	

Bridge Notes:
General John Sullivan Memorial Bridge
BRIDGE CLOSED TO TRAFFIC.
SECTION ON EAST HAS A WEIGHT LIMIT OF 12 PEOPLE MAX, 11/26/12.
CWIP - 11/6/2014 CHAIN LINK FENCE BEING INSTALLED ON DECK RESTRICTING PEDESTRIANS TO CENTER PORTION.
12 PERSON RESTRICTION IN SPAN 7 NO LONGER APPLIED.
Inspection Event to log VHB-HDR in depth inspection and load rating, see comprehensive report in files. Project 11238S. Photos in report.
DEP July 22, 2014

Approach and Roadway Notes: *ROAD CLOSED AND BARRICADED TO VEHICLE TRAFFIC, OPEN TO PEDESTRIANS. CHAIN LINK FENCE INSTALLED.*

Inspection History:

Inspection Date: 03/09/2016 **Inspector:** MAS

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:
MAS - inspection comments -
DECK: DECK IN SERIOUS CONDITION. BRIDGE CLOSED TO VEHICULAR TRAFFIC, OPEN TO PEDESTRIANS, NO LONGER SIGNED 12 PEOPLE MAX AT FENCED PORTION AT SOUTH END. ASPHALT - POOR CONDITION. CURB / SIDEWALK - CRACKED AND SPALLED. JOINTS - OPEN. RAIL - POOR CONDITION, HOLED WITH HEAVY SECTION LOSS; CHAIN LINK FENCE IN PLACE. SOFFIT - CRACKED AND SPALLED WITH REBAR EXPOSED. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS, IMMINENT FAILURE CONDITION. HOLED AREAS WITH HEAVY SECTION LOSS. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. CRACKED AND SPALLED WITH REBAR EXPOSED. SEE UNDERWATER INSPECTION REPORT.

PICTURE: C548-
21. STRINGER HOLED OVER FLOOR BEAM AT SOUTHWEST. TYPICAL OF SEVERAL.

Inspection Date: 11/09/2015 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:
KJT inspection comments -
DECK: BRIDGE CLOSED. DECK IN SERIOUS CONDITION. BRIDGE OPEN TO PEDESTRIANS, NO LONGER SIGNED 12 PEOPLE MAX AT FENCED PORTION AT SOUTH END. ASPHALT - POOR CONDITION. CURB / SIDEWALK - CRACKED AND SPALLED. JOINTS - OPEN. RAIL - POOR CONDITION, HOLED WITH HEAVY SECTION LOSS. SOFFIT - CRACKED AND SPALLED WITH REBAR EXPOSED. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. HOLED AREAS WITH HEAVY SECTION LOSS. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. CRACKED AND SPALLED WITH REBAR EXPOSED. SEE UNDERWATER INSPECTION REPORT.

Inspection Date: 06/16/2016
Notes:
VHB/HDR In-depth inspection June 8 - June 17, 2016
See comprehensive inspection report for details and photos

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A

Bridge Inspection Report

Dover 200/023

Inspection History:

Inspection Date: 03/30/2015 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KJT inspection comments -
DECK: BRIDGE CLOSED. DECK IN SERIOUS CONDITION. BRIDGE OPEN TO PEDESTRIANS, NO LONGER SIGNED 12 PEOPLE MAX AT FENCED PORTION AT SOUTH END. ASPHALT - POOR CONDITION. CURB / SIDEWALK - CRACKED AND SPALLED. JOINTS - OPEN. RAIL - POOR CONDITION, HOLED WITH HEAVY SECTION LOSS. SOFFIT - CRACKED AND SPALLED WITH REBAR EXPOSED. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. HOLED AREAS WITH HEAVY SECTION LOSS. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. CRACKED AND SPALLED WITH REBAR EXPOSED. SEE UNDERWATER INSPECTION REPORT.

PICTURE: C529.
26. NEW CHAINLINK FENCE.

Inspection Date: 11/06/2014 **Inspector:** MAS

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

MAS - inspection comments - ****CWIP****
DECK: BRIDGE CLOSED. DECK IN SERIOUS CONDITION. BRIDGE OPEN TO PEDESTRIANS, 12 PEOPLE MAX AT FENCED PORTION AT SOUTH END. ASPHALT - POOR CONDITION. CURB / SIDEWALK - CRACKED AND SPALLED. JOINTS - OPEN. RAIL - POOR CONDITION, HOLED WITH HEAVY SECTION LOSS. SOFFIT - CRACKED AND SPALLED WITH REBAR EXPOSED. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. HOLED AREAS WITH HEAVY SECTION LOSS. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. CRACKED AND SPALLED WITH REBAR EXPOSED. SEE UNDERWATER INSPECTION REPORT.

PICTURE: C524-
66. CWIP.

Inspection Date: 05/15/2014 **Inspector:** DEP

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Inspection Event to log VHB-HDR in depth inspection and load rating, see comprehensive report in files. Project 11238S. Photos in report.
DEP July 22, 2014

Inspection Date: 03/18/2014 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KJT inspection comments -
DECK: BRIDGE CLOSED. DECK IN SERIOUS CONDITION. BRIDGE OPEN TO PEDESTRIANS, 12 PEOPLE MAX AT FENCED PORTION AT SOUTH END. ASPHALT - POOR CONDITION. CURB / SIDEWALK - CRACKED AND SPALLED. JOINTS - OPEN. RAIL - POOR CONDITION, HOLED WITH HEAVY SECTION LOSS. SOFFIT - CRACKED AND SPALLED WITH REBAR EXPOSED. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. HOLED AREAS WITH HEAVY SECTION LOSS. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. CRACKED AND SPALLED WITH REBAR EXPOSED. SEE DIVE REPORT.

Inspection History:

Inspection Date: 11/07/2013 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KJT inspection comments -
DECK: BRIDGE CLOSED. DECK IN SERIOUS CONDITION. BRIDGE OPEN TO PEDESTRIANS, 12 PEOPLE MAX AT FENCED PORTION AT SOUTH END. ASPHALT - POOR CONDITION. CURB / SIDEWALK - CRACKED AND SPALLED. JOINTS - OPEN. RAIL - POOR CONDITION, HOLED WITH HEAVY SECTION LOSS. SOFFIT - CRACKED AND SPALLED WITH REBAR EXPOSED. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. HOLED AREAS WITH HEAVY SECTION LOSS. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. CRACKED AND SPALLED WITH REBAR EXPOSED. SEE DIVE REPORT.

PICTURE: C496-23. BEAM #2 HEAT STRAIGHTENED.

Inspection Date: 03/07/2013 **Inspector:** MAS

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

MAS - inspection comments -
DECK: BRIDGE CLOSED. DECK IN SERIOUS CONDITION. BRIDGE OPEN TO PEDESTRIANS, 12 PEOPLE MAX AT FENCED PORTION AT SOUTH END. ASPHALT - POOR CONDITION. CURB / SIDEWALK - CRACKED AND SPALLED. JOINTS - OPEN. RAIL - POOR CONDITION, HOLED WITH HEAVY SECTION LOSS. SOFFIT - CRACKED AND SPALLED WITH REBAR EXPOSED. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. HOLED AREAS WITH HEAVY SECTION LOSS. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. CRACKED AND SPALLED WITH REBAR EXPOSED. SEE DIVE REPORT.

Inspection Date: 11/26/2012 **Inspector:** KLM

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KLM inspection comments -
DECK: BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION.

PICTURE: D105-
65. SECTION ON EAST HAS A WEIGHT LIMIT OF 12 PEOPLE MAX.

Inspection Date: 03/06/2012 **Inspector:** MAS

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

MAS - inspection comments -
DECK: BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE: BRIDGE CLOSED. SERIOUS CONDITION.

PICTURE: C447-
08. CWIP.

Inspection History:

Inspection Date: 11/14/2011 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KJT inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

PICTURE: C427
32. CWIP. NEW APPROACH SPAN AT NORTH.

Inspection Date: 11/01/2011 **Inspector:** JEL

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

JEL - underwater inspection comments -
Refer to Appledore Engineering underwater inspection 11/1/2011.

Inspection Date: 03/18/2011 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

DPC inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

PICTURE: C427
24: CWIP. NEW APPROACH SPAN AT NORTH.
25: CWIP. NEW APPROACH SPAN AT NORTH.

Inspection Date: 11/18/2010 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KJT inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

PICTURE: C425-
2: CWIP.

Inspection Date: 03/22/2010 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KJT- inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

Bridge Inspection Report

Dover 200/023

Inspection History:

Inspection Date: 11/17/2009 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

DPC - inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

Inspection Date: 03/17/2009 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KJT inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

Inspection Date: 11/17/2008 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

KJT inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

Inspection Date: 09/10/2008 **Inspector:** DMB

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 5 Fair
Culvert: N N/A (NBI)

Notes:

DMB inspection comments- UNDERWATER INSPECTION OF PIER ELEMENTS ONLY. MODERATE EROSION(SPALLING) OF THE CONCRETE FOOTINGS, SOME AREAS OF SOFT CONCRETE THAT COULD BE PULVERIZED WITH A HAMMER. SOME AREAS SEEM TO BE LARGER IN SIZE THAN IN THE PREVIOUS INSPECTION, ESPECIALLY IN AREAS NEAR THE EAST AND WEST ENDS OF EACH FOOTING. ISOLATED AREAS OF MASONRY JOINT MATERIAL MISSING.

Inspection Date: 03/31/2008 **Inspector:** KJT

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

RLM- inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

PICTURES: C367-23
23. SETTLEMENT IN JOINTS TYPICAL OF SEVERAL JOINT MATERIAL FALLEN.

Bridge Inspection Report

Dover 200/023

Inspection History:

Inspection Date: 11/27/2007 **Inspector:** RLM

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

RLM- inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END. HOLES THOUGH EAST AND WEST VERTICAL AT SOUTH ABUTMENT.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

PICTURES: C361- 32 THRU 34.

Inspection Date: 03/12/2007 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

DPC- inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

Inspection Date: 04/10/2006 **Inspector:** RLM

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

RLM inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

PIC(S): C304- 17. PIC(S): C311- 28,29,30.

Inspection Date: 11/03/2005 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 03/02/2006 09:35:51
DPC inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

PIC: C304-17

Inspection Date: 11/17/2004 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 03/22/2005 15:54:10
DPC inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END.
SUBSTRUCTURE- BRIDGE CLOSED. SERIOUS CONDITION.

Bridge Inspection Report

Dover 200/023

Inspection History:

Inspection Date: 03/24/2004 **Inspector:** RLM

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 7/1/2004 11:49:41
RLM inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. IMMINENT FAILURE CONDITION. SEVERAL ELECTRICAL PLATE COVERS REPAIRED.
SUPERSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION. STRINGERS #3, #5, HOLED THROUGH WEB AT SOUTH END.
SUBSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.

PICTURES: C232- 02, 03, 04.

Inspection Date: 10/27/2003 **Inspector:** RLM

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 6/2/2004 14:03:47
RLM inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. IMMINENT FAILURE CONDITION. SEVERAL ELECTRICAL PLATE COVERS MISSING ON SIDEWALKS.
SUPERSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.
SUBSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.

PICTURE: C206-19.

Inspection Date: 03/18/2003 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 11/13/2003 13:11:23
DPC inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. IMMINENT FAILURE CONDITION. JOINT REPAIRS INSTALLED.
SUPERSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.
SUBSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.

Inspection Date: 10/18/2002 **Inspector:** RLM

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 02/18/2003 16:21:58
RLM inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. IMMINENT FAILURE CONDITION. JOINT REPAIRS INSTALLED.
SUPERSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.
SUBSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.

PICTURES: C125-10, 11

Inspection Date: 10/18/2001 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 04-05-2002 15:33:41
DPC inspection comments -
DECK- BRIDGE CLOSED. DECK IN SERIOUS CONDITION. IMMINENT FAILURE CONDITION.
SUPERSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.
SUBSTRUCTURE- BRIDGE CLOSED. IMMINENT FAILURE CONDITION.

PICS: C125-10, 11

Bridge Inspection Report

Dover 200/023

Inspection History:

Inspection Date: 04/06/2001 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 08-16-2001 15:57:23
DPC inspection comments -
DECK - BRIDGE CLOSED. DECK IN SERIOUS CONDITION.
SUPERSTRUCTURE - BRIDGE CLOSED.
SUBSTRUCTURE - BRIDGE CLOSED.

PIC. C109-24

Inspection Date: 10/27/2000 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

DPC inspection comments -
Deck: Asphalt - cracked, settled, lifting, breaking at edges and encroaching. Concrete - heavy spalling and delaminating with rebar exposed and heavy section loss. Heavy leaking and rust staining. Sidewalk/Curb heavily spalled with rebar exposed. Expansion joints - covered by 4 foot x 8 foot steel plates, one settled 4 inches at S. approach span.
Superstruture: - I-beam stringers - heavily rusted with heavy section loss and holed areas. Floorbeams - heavily rusted, heavy section loss and holed areas. Truss: Chords- rusted w/ section loss, holed areas.
Substructure: Abuts. - Concrete - heavy spalling w/ rebar exposed w/ section loss. Backwall - heavy spalling. Bridgeseat - Concrete - new at south.

Inspection Date: 03/23/2000 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 10-11-2000 08:15:33
DPC inspection comments -
Deck: Asphalt - cracked, settled, lifting, breaking at edges and encroaching. Concrete - heavy spalling and delaminating with rebar exposed and heavy section loss. Heavy leaking and rust staining. Several loose delaminations over N. end walkway. Sidewalk/Curb heavily spalled with rebar exposed. Expansion joints - covered by 4 foot x 8 foot steel plates, one settled 4 inches at S. approach span.
Superstructure: - I-beam stringers - heavily rusted with heavy section loss and holed areas. Floorbeams - heavily rusted, heavy section loss and holed areas. Truss: Chords- rusted w/ section loss, holed areas.
Substructure: Abuts. - Concrete - heavy spalling w/ rebar exposed w/ section loss. Backwall - heavy spalling. Bridgeseat - Concrete - new at south.

Inspection Date: 11/10/1999 **Inspector:** RLM

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 12-10-1999 16:31:41
RLM inspection comments -
Deck: Asphalt - cracked, settled, lifting, breaking at edges and encroaching. Concrete - heavy spalling and delaminating with rebar exposed and heavy section loss. Heavy leaking andrust staining. Several loose delaminations over N. end walkway. Sidewalk / Curb heavily spalled with rebar exposed. Expansion joints - covered by 4 foot x 8 foot steel plates, one settled 4 inches at S. approach span.
Superstructure: - I-beam stringers - heavily rusted with heavy section loss and holed areas. Floorbeams - heavily rusted, heavy section loss and holed areas. Truss: Chords- rusted w/ section loss, holed areas.
Substructure: Abuts. - Concrete - heavy spalling w/ rebar exposed w/ section loss. Backwall - heavy spalling. Bridgeseat - Concrete - new at south. Wings - heavy spalls. Piers - Granite/ Concrete cap -some loose mortar.

Inspection History:

Inspection Date: 03/18/1999 **Inspector:** DPC

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

DPC inspection comments -
Deck: Asphalt - cracked, settled, lifting, breaking at edges and encroaching. Concrete - heavy spalling and delaminating with rebar exposed and heavy section loss. Heavy leaking and rust staining. several loose delaminations over N. end walkway. Sidewalk / Curb heavily spalled with rebar exposed. Expansion joints - covered by 4 foot x 8 foot steel plates, one settled 4 inches at S. approach span.
Superstructure: - I-beam stringers - heavily rusted with heavy section loss and holed areas. Floorbeams -heavily rusted, heavy section loss and holed areas. Truss: Chords- rusted w/ section loss , holed areas.
Substructure: Abuts. - Concrete - heavy spalling w/ rebar exposed w/ section loss. Backwall - heavy spalling. Bridgeseat - Concrete - heavy spalling. Wings - heavy spalls. Piers - Granite/ Concrete cap -some loose mortar.

Inspection Date: 10/09/1998 **Inspector:** FNM

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 12-23-98 07:59:26
FNM inspection comments -
Deck: Asphalt - cracked, settled, lifting, breaking at edges and encroaching Concrete - heavy spalling and delaminating w/ rebar exposed w/ heavy section loss. Heavy leaking w/ efflorecence and rust staining. Several loose delaminations over N. end walkway. Sidewalk/Curb heavily spalled w/ rebar exposed. Expansion joints - covered w/ 4 foot x 8 foot steel plates, one settled4 inches at S. approach span.
Superstructure: - I-beam stringers - heavily rusted w/ heavy section loss and holed areas. Floorbeams -heavily rusted w/ heavy section loss and holed areas. Truss: Chords- rusted w/ section loss, holed areas.
Substructure: Abuts. - Concrete - heavy spalling w/ rebar exposed w/ section loss. Backwall - heavy spalling. Bridgeseat - Concrete - heavy spalling

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Inspection Date: 04/01/1998 **Inspector:** Not Available

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Inspection Date: 11/01/1997 **Inspector:** Not Available

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Inspection Date: 03/01/1997 **Inspector:** Not Available

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Inspection Date: 11/01/1996 **Inspector:** Not Available

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Inspection Date: 03/01/1996 **Inspector:** Not Available

Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Notes:

Bridge Inspection Report

Dover 200/023

Inspection History:

Inspection Date: 10/01/1994 **Inspector:** Not Available
Notes:
Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 1 Closed - Failing
Culvert: N N/A (NBI)

Inspection Date: 06/01/1993 **Inspector:** Not Available
Notes:
Deck: 1 Closed - Failing
Super: 1 Closed - Failing
Substr: 6 Satisfactory
Culvert: N N/A (NBI)

Copy Distribution:

- [ ] (2) Bureau of Municipal Hghways
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- [ ] Dept. of Environmental Services
- [ ] USDA Forest Service
- [ ] Bureau of Traffic

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

APPENDIX B – 2014 INSPECTION PHOTOS

GENERAL SULLIVAN BRIDGE - DOVER 200/023
OVER THE LITTLE BAY

NEWINGTON-DOVER, 11238S

Vanasse Hangen Brustlin, Inc.
2 Bedford Farms Drive
Bedford, NH 03110

HDR Engineering, Inc.
695 Atlantic Ave 2FL
Boston, MA 02111

APPENDIX B – 2014 PHOTOS

TABLE OF CONTENTS

Photo M.1: Propriety inspection equipment, including the Bucket Boat (shown), and the Tracker (an all-terrain treaded vehicle) were used to inspect Floor systems of Spans 1-2 and 8-9, as well as Trusses of Spans 1-3 and 7-9.

Photo M.2: Industrial rope access was used to inspect the floor system of Spans 3 through 7, and trusses of Spans 4-6.

Photo D.1: Span 7, East end of deck at deck drains. Severe spalling and up to 100% section loss in rebar at ends typical.

Photo D.2: Span 3, deck at mid-panel between Floorbeams 8 and 9, also between Stringers 4 and 5. Typical spalling in deck, exposed rebar with section loss.

Photo D.3: Bridge looking south from north approach. Cracking in deck wearing surface with vegetation typical throughout bridge.

Photo D.4: Bridge looking north from south approach.

Photo D.5: Span 1, curb over east fascia. Large area of curb spall where channel has separated from curb and large cracks have formed. Similar condition exists on several locations throughout the deck.

Photo D.6: Span 6, west curb at mid-span. Spalling and cracking in curb at mid-span. Stringer at this location exhibits signs of overstress

Photo D.7: Deck joint at Pier 6. Joint seal failed full width.

Photo D.8: Span 1, bridge railing and post. Up to 100% section loss in lower rail, and over 50% section loss in post flanges typical throughout bridge.

Photo D.9: Span 5, railing at top of east vertical member L11'-U11'. Section loss to exterior web of vertical channel. Similar condition throughout Span 5

Photo D.10: Span 4, fascia channel at east end of sidewalk deck, located at Floorbeam U1. ¼" pitting full height, along the connection to the bridge railing support. Section loss on fascia channels at railing supports is typical throughout the bridge.

Photo F.1: Span 1, exterior stringers on east fascia directly under deck drains. Typical in poor to serious condition.

Photo F.2: Span 2, interior stringers and interior of floor beams typically in fair condition.

Photo F.3: Span 8, west exterior stringer between F8 and F7. 80% section loss in bottom flange at mid-span.

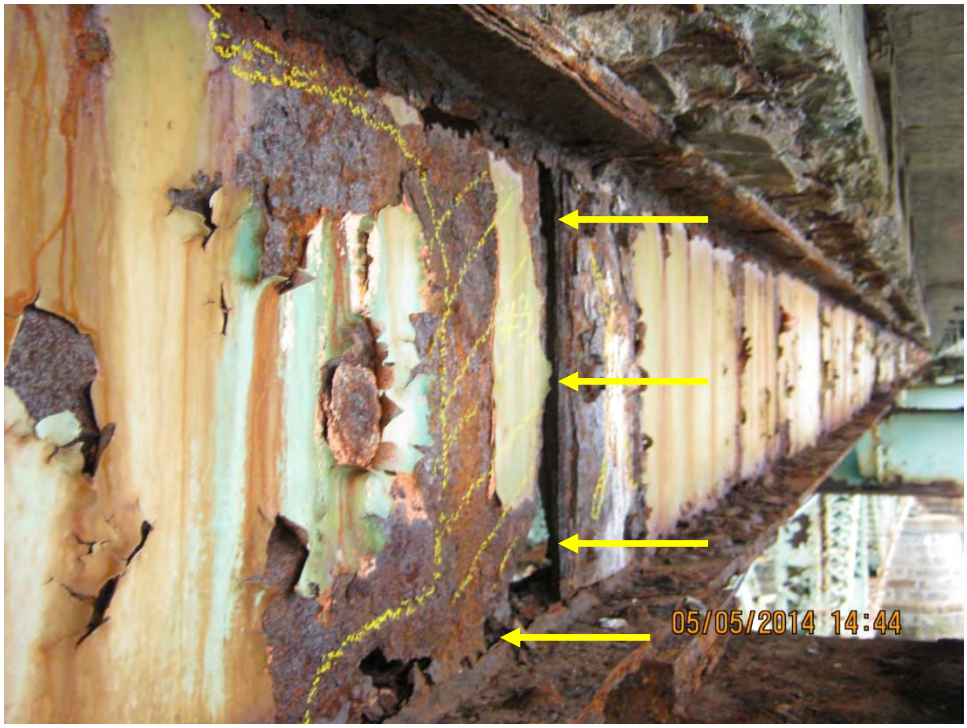

Photo F.4: Span 1, west exterior stringer above F4. Full section loss in the top and bottom of the web and along the connection plate.

Photo F.5: Span 4, east stringer at FB5. 100% section loss in web at the connection of the two stringers. Connection plate was removed by hand during inspection.

Photo F.6: Span 4, east stringer U7U8. Mid-span buckle on lower web at flange. Due to nearly full-length perforations. Note that a rigging cable had previously been rigged through the hole in the web.

Photo F.7: Span 8, east cantilevered end of floor beam F9. Net thickness of 0.6” in the top and bottom flange with a 2” hole in the web at the exterior stringer knee brace.

Photo F.8: Span 8, floor beam F14 and interior stringer directly under deck joint. Large areas of full perforation along the bottom of web in floor beam and stringer coupled with flange loss.

Photo F.9: Span 6, east stringer connection at Floorbeam 7'. Corrosion holes and section loss in web of stringer and in floorbeam.

Photo F.10: Span 6, Floorbeam 8 at west stringer. Section loss in floorbeam at ends with holes in stiffeners typical.

Photo F.11: Span 2, floorbeam F1. All floorbeams in Span 2 are racked 5°- 10° to the north. Similar conditions exist on Span 9 floorbeams.

Photo: F.12: Span 6 floor system.

Photo T.1: Span 2, diagonal member between L6 and U5 on east truss. Typical loss on top flange of channel member at lacing bar.

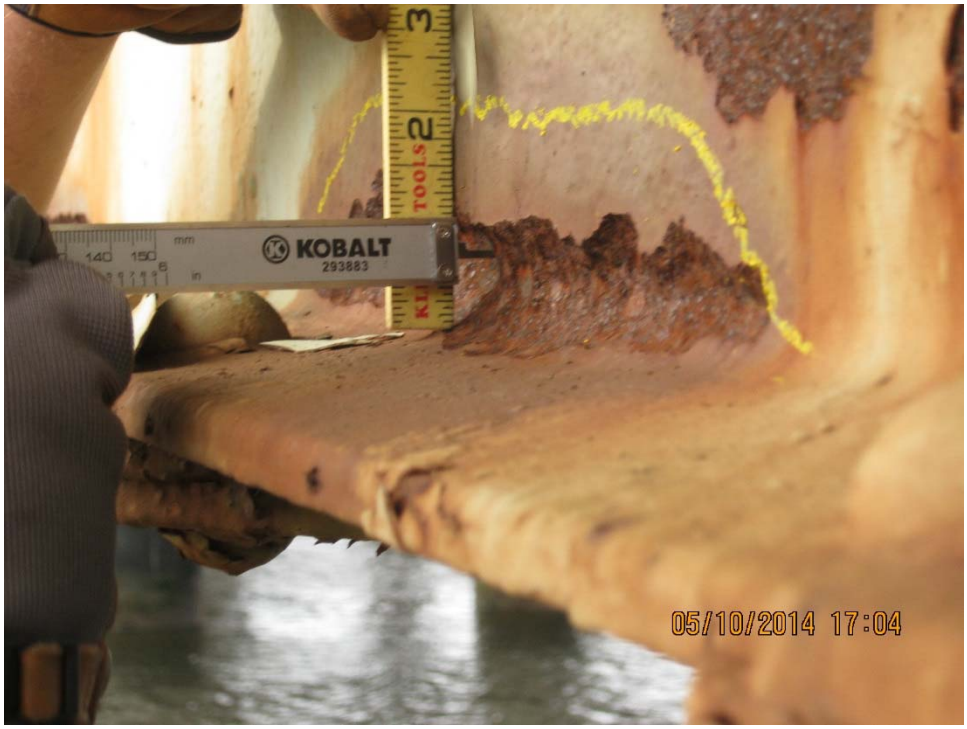

Photo T.2: Span 7, bottom chord member between L7 and L8 on east truss. Typical loss at the bottom of web on channel members.

Photo: T.3: Span 2, built-up channel members throughout the truss generally in fair to poor condition.

Photo T.4: Span 5, east vertical member U9L9 inner channel web above FB9. Heavy corrosion holes at bottom of hanger. Photo taken of the inside face of U9L9.

Photo T.5: Span 4, gusset plate at L8 on the east truss. Section loss on vertical L8U8 channel web along gusset plate interface. Typical condition for most lower locations.

Photo T.6: Span 4, east gusset plate at L3. Section loss and pack rust on gusset plate along interface with bottom chord. Typical condition of diagonal and bottom chord interfaces throughout Spans 4, 5 and 6.

Photo T.7: Span 4, bottom chord L0L1. Surface corrosion and bottom flange section loss inside of chord. Typical throughout all truss members.

Photo T.8: Span 4, east bottom chord inside L7. Section loss due to laminar corrosion under bottom plate and inside gusset plate connection. Typical condition of bottom chords at gusset plate connections throughout bridge.

Photo T.9: Span 4, east diagonal L6U7. Random pitting on truss web exterior. Common condition on interior channels throughout the Spans 4, 5 and 6.

Photo T.10: Span 6, west bottom chord L6'L7'. Scalloping and pack rust between outer plate and webs of both channels. Typical condition throughout Spans 4, 5 and 6.

Photo T.11: Span 4, west diagonal truss member U5L4. Section loss on flange at lacing bars. Section loss at interface with lacing bars typical for most channel flanges on top and bottom throughout the bridge.

Photo T.12: Span 5, east bottom chord L12L13. Pack rust and section loss to lacing bars. Typical throughout the bridge.

Photo T.13: Span 4, Diagonal L2U1 of the east truss – corrosion holes up to 4½" in diameter on diagonal webs at lower end of chord, adjacent to U1.

Photo T.14: Span 7, bottom chord member L0L1 of east truss. Full perforation and heavy loss in web along welded retrofit plate in outside channel.

Photo T.15: Span 7, bottom chord member L0L1 of east truss. Several holes surrounded by 50% loss throughout the full height of web in the inner channel.

Photo T.16: Span 8, vertical member in east truss at Pier 7. 5” wide hole in web surrounded by 50% loss in full width of web.

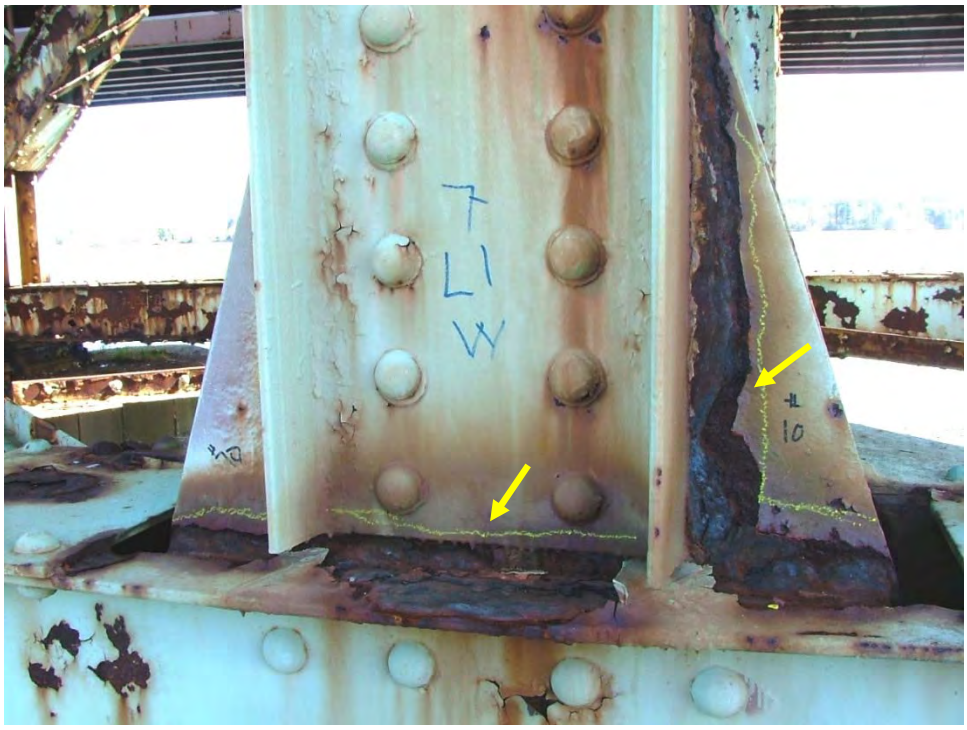

Photo T.17: Span 7, lower gusset plate at L1 on west truss. Heavy loss along the top of the bottom chord adjacent to vertical member.

Photo T.18: Span 8, lower gusset plate at L12 on west truss. Typical losses along the bottom chord, diagonal, and vertical members.

Photo T.19: Span 8, inside of lower gusset plate at L12. Typical loss along the top of diaphragm on the inside of the interior gusset plate.

Photo T.20: Span 2, upper gusset plate at U3 on east truss. Upper gusset plates typically in good condition.

Photo T.21: Span 5, inner west gusset plate at U9. Surface corrosion only. Typical at top chord member gusset plates throughout Span 5.

Photo B.1: Span 1, typical bottom lateral bracing condition with pack rust between angles.

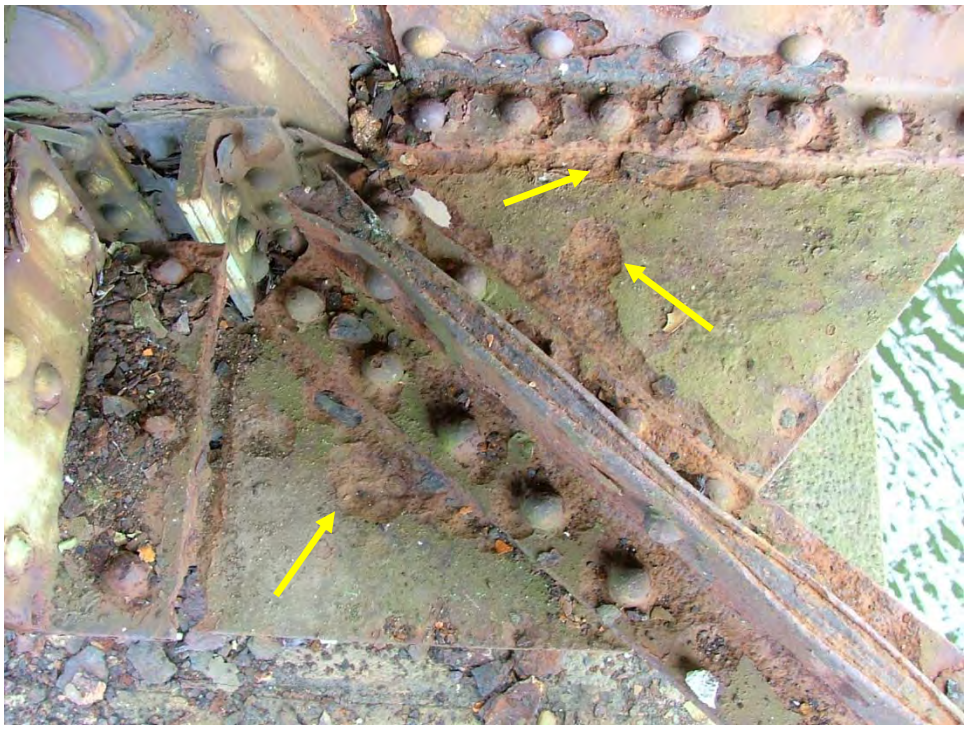

Photo B.2: Span 1, typical bottom lateral bracing gusset plate condition with moderate pitting and corrosion.

Photo B.3: Pier 1, Span 2, sway bracing below deck joint with heavy pack rust between angles. Pitting on top flanges of lateral strut below.

Photo B.4: Span 4, bottom lateral bracing gusset plate at U2 on the west truss, pitting to 1/8" along lateral gusset plate. Several top lateral bracing gusset plates similar.

Photo B.5: Span 4, lateral gusset plate U1. Severe section loss in lateral gusset plate, with 100% section loss in connection to floorbeam. Many severe cases exist throughout Spans 4, 5 and 6.

Photo B.6: Pier 1, Span 2, close up view of pack rust between angles, typical on sway and lateral bracing.

Photo B.7: Span 4, east sway frame gusset plate at U0. Section loss along connection angles to floorbeam bottom flange and truss connections. Typical in many locations throughout the bridge.

Photo BR.1: Pier 5, fixed bearing under west truss. Typical condition with minor loss in top cover plate and around bearing stiffeners.

Photo BR.2: Pier 4, expansion bearing under west truss. Typical condition with minor loss in top cover plate and around bearing stiffeners.

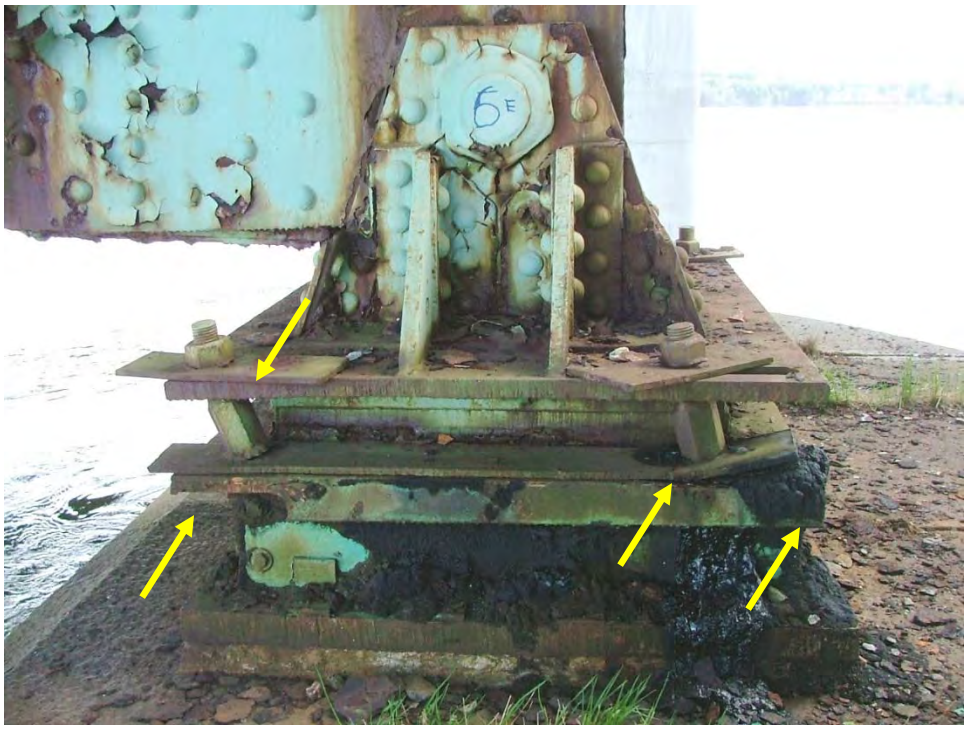

Photo BR.3: Pier 6, east expansion bearing adjacent to Span 6. Bearings are overextended resulting in anchor bolt failure and damaged bearing shroud. Similar conditions exist at Pier 3.

Photo S.1: Dover abutment in overall good condition.

Photo S.2: Newington abutment and wingwalls in overall good condition.

Photo S.3: Pier 1, mortar loss between granite blocks in pier cap. Typical at most piers.

Photo S.4: Pier 3, heavy mortar loss between granite blocks below water level. Typical condition for most piers.

Photo S.5: Pier 7, cracks in granite blocks above water line.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

APPENDIX C – 2014 CONDITION TABLES

GENERAL SULLIVAN BRIDGE - DOVER 200/023
OVER THE LITTLE BAY

NEWINGTON-DOVER, 11238S

Vanasse Hangen Brustlin, Inc.
2 Bedford Farms Drive
Bedford, NH 03110

HDR Engineering, Inc.
695 Atlantic Ave 2FL
Boston, MA 02111

APPENDIX C – 2014 CONDITION TABLES

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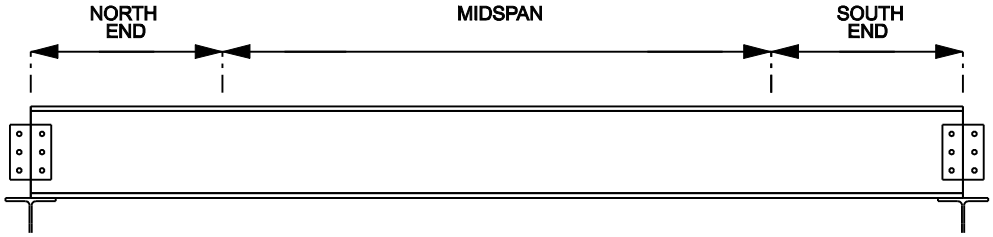
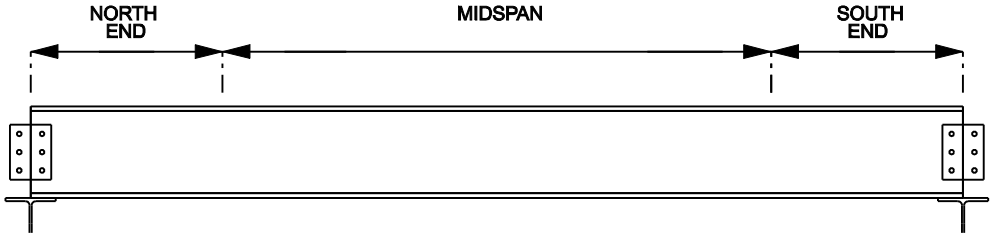
APPENDIX C – 2014 CONDITION TABLES

STRINGERS



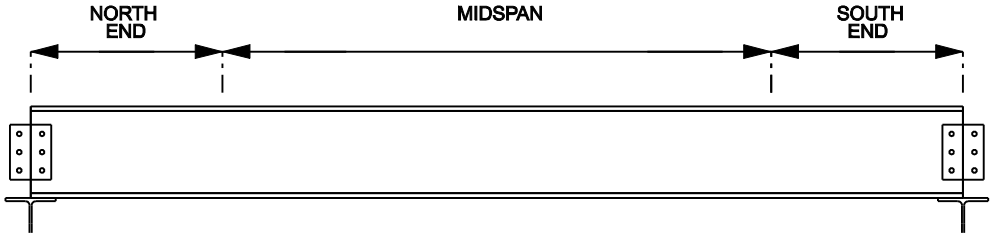
Span 1 - Stringers				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 1	S5	CB 18 x 47	North End		Full perf. along Top w/ 40% around conn PL	
			Midspan			10%
			South End		25% x 4"W	
Panel 2	S5	CB 18 x 47	North End	10%	Full perforation @ conn. PL	10%
			Midspan	10%		10%
			South End	10%		10%
Panel 3	S5 †	CB 18 x 47	North End		Full perforation along Top & @ conn. PL	75%
			Midspan	25%	Full perforation along Top	35%
			South End	65%	Full perforation along Top & Bott.	
Panel 4	S1 †	CB 18 x 47	North End		Full perf @ conn. PL w/ 40% to 75% around	
			Midspan		Areas of full perforation along Top	20%
			South End		Full perforation @ conn. PL	
	S5 †	CB 18 x 47	North End	25%	Full perforation along T&B & @ conn. PL	50% - 75%
			Midspan	25%	Full perforation along Top and Bott.	90%
			South End	25%		
Panel 5	S5 †	CB 18 x 47	North End		25% to full perforation along Top & @ conn. PL	80% @ F4
			Midspan	25%		25%
			South End		Full perf. along Bott & 50% to full perf. along Top	
Panel 6	S1 †	CB 18 x 47	North End		Full perforation along Top and Bott.	
			Midspan	20%		20%
			South End			
	S4	CB 20⅛ x 60	North End	15%		
			Midspan	15%		
			South End	15%		
	S5	CB 18 x 47	North End	25%	Full perforation @ conn. PL	25%
			Midspan	25%		25%
			South End			

† Indicates critical stringer location - See Bridge Condition section of inspection report.



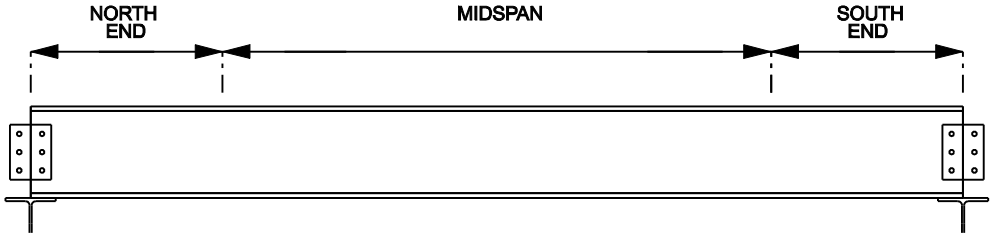
Span 2 - Stringers				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 1	S1	CB 20 x 55	North End	15%	Full perf. along Bott. & 25% to full perf along Top	
			Midspan	15%		10%
			South End	15%		
	S3	CB 21¼ x 67	North End		10%	
			Midspan			
			South End			
	S5 †	CB 20 x 55	North End		35% @ F0	
			Midspan		Some perforation along Bott.	40%
			South End		50% @ conn. PL	75%
Panel 2	S1	CB 20 x 55	North End	10%	Full perforation @ conn. PL	
			Midspan	10%		25%
			South End	10%		
	S4	CB 21¼ x 67	North End			
			Midspan			
			South End		5% @ conn. PL	15%
	S5 †	CB 20 x 55	North End		Full perf. w/ 90% along Bott. & 50% @ conn PL	
			Midspan	15%		75%
			South End		25% @ conn. PL	60%
Panel 3	S1	CB 20 x 55	North End	10%		5%
			Midspan	10%		5%
			South End	10%	Full perf. below PL w/ 50% around/above PL	5%
	S3	CB 21¼ x 67	North End			
			Midspan			
			South End		10% @ conn. PL	
	S4	CB 21¼ x 67	North End		25% @ conn. PL	
			Midspan			
			South End		10% @ conn. PL	
	S5 †	CB 20 x 55	North End	15%		25%
			Midspan	15%		75%
			South End	15%	25% @ conn. PL	25%
Panel 4	S3	CB 21¼ x 67	North End		10% @ conn. PL	
			Midspan			
			South End			
	S4	CB 21¼ x 67	North End		10% @ conn. PL	
			Midspan			
			South End			
	S5 †	CB 20 x 55	North End	15%	15% throughout	40%
			Midspan	15%	15% w/ full perforation along Bott.	40%
			South End	15%	15% throughout and 50% @ conn. PL	40%

† Indicates critical stringer location - See Bridge Condition section of inspection report.



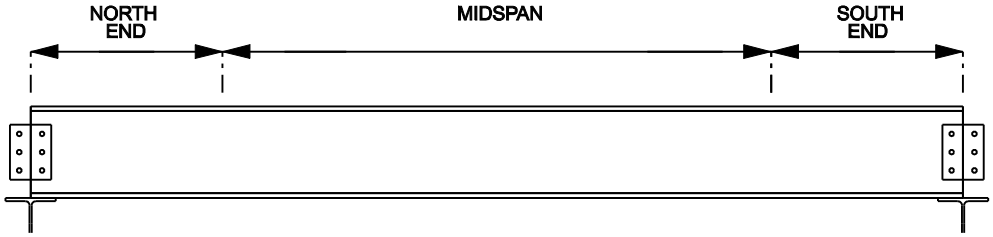
Span 2 - Stringers (cont.)				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 5	S1	CB 20 x 55	North End	10%		5%
			Midspan	10%		5%
			South End	10%		5%
	S5	CB 20 x 55	North End		25% @ conn. PL	
			Midspan	10%	Full perforation along Bott.	50%
			South End			
Panel 6	S1	CB 20 x 55	North End	10%		10%
			Midspan	10%		10%
			South End	10%		10%
	S5	CB 20 x 55	North End	15%	25% @ conn. PL	25%
			Midspan	15%	Full perforation along Bott.	25%
			South End	15%	25% @ conn. PL	25%

† Indicates critical stringer location - See Bridge Condition section of inspection report.



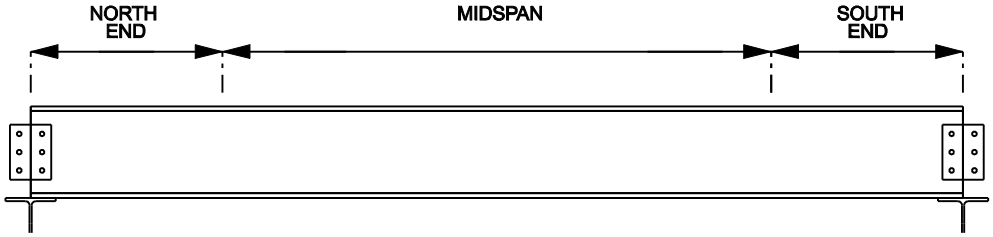
Span 3 - Stringers				Losses		
Location		**Member Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 7	S1	CB20x55	North End			
			Midspan	50%		50%
			South End		100% SL 24"L starting 2" from bottom flange	25%
	S3	CB21x67	North End			
			Midspan			
			South End	11%		
	S5	CB20x55	North End			
			Midspan			28%
			South End		Perforation 6.5" W x 3.5"H, 34% SL along conn. PL	44%
Panel 8	S1	CB20x55	North End			
			Midspan	22%		22%
			South End			
	S5	CB20x55	North End		Perforation 6.5"W x 4"H at conn PL	22%
			Midspan	22%		22%
			South End		100% SL	50%
Panel 9	S1 †	CB20x55	North End	22%		22%
			Midspan	22%		22%
			South End	22%	100% SL	34%
	S5	CB20x55	North End		Perforation 4"W x 2"H	
			Midspan		51% rem. East half	78%
			South End	22%	3.25" perforation above and below conn PL, 34% SL on web full height	78%
Panel 10	S1	CB20x55	North End		Perforation 1" dia and 4" x 5" W	78%
			Midspan			
			South End			
	S5	CB20x55	North End		34% pitt. Full length	
			Midspan		34% pitt. Full length	34%
			South End		34% pitt. Full length	44%
Panel 11	S1	CB20x55	North End			56%
			Midspan		Knife edge both sides	35%
			South End		100% SL at conn. PL	75%
	S5	CB20x55	North End	100%	68% pitting in bot. 4" of web	100%
			Midspan		50% SL full height	34%
			South End		Perforation 9"H x 12"L. intermittent perforations along bottom of web 2"H from conn. towards midspan	84%

† Indicates critical stringer location - See Bridge Condition section of inspection report.



Span 3 - Stringers (cont.)				Losses		
Location		**Member Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 12	S1	CB20x55	North End		34% SL	
			Midspan		51% SL	60%
			South End		34% SL	78%
	S3	CB21x67	North End			
			Midspan			
			South End		32% SL x 3"H	29%
	S5	CB20x55	North End	22%	Holes around conn. PL 7"W @ top, 9"H, & 2"W under conn. PL. Total H = 9"	
			Midspan			
			South End		100% SL	31%
Panel 13	S1	CB20x55	North End	56%	34% SL	28%
			Midspan		68% SL	56%
			South End	100%		100%
	S5	CB20x55	North End		Perforations 8"H portion of web rem	27%
			Midspan	12%		37%
			South End		Perforation above and below plate 2" and 3.5" W respectively, 34% SL elsewhere	58%
Panel 14	S1	CB20x55	North End		Perforation around conn. PL, 5" vert portion of web rem.	31%
			Midspan	50%	34% SL on bot. 6"	66%
			South End		34% SL	100%
	S2	CB21x67	North End		100% SL to bot. 6"	100%
			Midspan			
			South End			
	S5	CB20x55	North End		100% SL at conn. PL	39%
			Midspan			89%
			South End		100% SL above and below conn. PL	78%

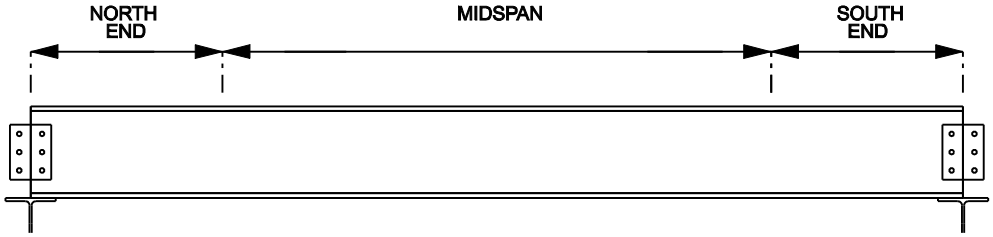
† Indicates critical stringer location - See Bridge Condition section of inspection report.



Span 4 - Stringers				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 1	S1	CB 21 x 62	North End	100%	Perforation 4" H	80%
			Midspan	20%		39%
			South End			
	S3	CB 24 x 74	North End		Perforation 3" H, 50% SL 5" H	
			Midspan			
			South End			
	S4	CB 24 x 74	North End		29% SL, 6" H	
			Midspan			
			South End			
	S5	CB 21 x 62	North End		6"x2" perforation	
			Midspan	20%	31%	20%
			South End			
Panel 2	S1	CB 21 x 62	North End		100%	
			Midspan	20%	31% SL 2"H	20%
			South End			
	S5	CB 21 x 62	North End		Perforations 3"H at bottom, 4" H at top	36%
			Midspan	20%	Perforation 3" H at bottom	69%
			South End		Perforation 1"x1"	
Panel 3	S1	CB 21 x 62	North End		31%	20%
			Midspan	20%	Perforations 1"H, 31% SL 6" H	20%
			South End		31%	100%
	S2	CB 24 x 74	North End			
			Midspan			
			South End			9%
	S5	CB 21 x 62	North End		Perforations 1"H at bottom, 4" H at top	
			Midspan	41%		41%
			South End			
Panel 4	S1	CB 21 x 62	North End	20%	1"x1" perforation	
			Midspan	20%		20%
			South End	20%	Perforation 10"H	59%
	S5	CB 21 x 62	North End		Perforation 2"x1"	
			Midspan	20%	31% x 8" H	20%
			South End		Perforations/paper thin rem. ~100% SL	
Panel 5	S1	CB 21 x 62	North End		Perforations 2"H at bottom, 1" H at top	59%
			Midspan	20%		80%
			South End		31%	59%
	S5	CB 21 x 62	North End		Paper thin x 5" rem. ~ 100% SL	
			Midspan	20%		79%
			South End		31%	

† Indicates critical stringer location - See Bridge Condition section of inspection report.

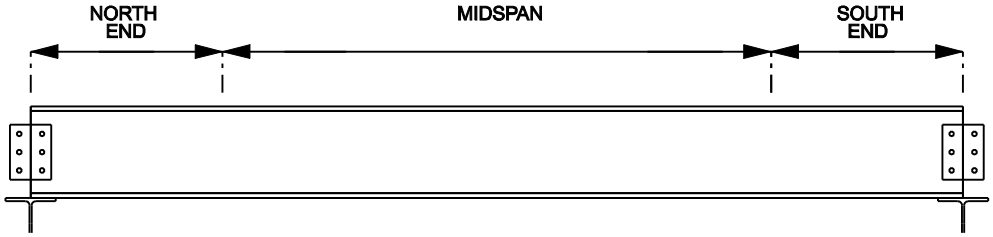
*Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.



Span 4 - Stringers (cont.)				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 6	S1	CB 21 x 62	North End	20%	Perforation 3"Hx1'L	20%
			Midspan	20%	31% x 6"H	20%
			South End	20%		20%
	S5	CB 21 x 62	North End		Perforations 3" H and 1"H, 63% SL FH	59%
			Midspan			79%
			South End		31%	59%
Panel 7	S1	CB 21 x 62	North End		Perforations 3" H and 4" H	80%
			Midspan	20%		19%
			South End		Perforation 2"H, 84% FH	59%
	S5 †	CB 21 x 62	North End		100% SL, member crippled	90%
			Midspan			
			South End		Perforation FH	59%
Panel 8	S1	CB 21 x 62	North End	20%	Perforations 3"H	49%
			Midspan		31%	59%
			South End		2" x 69% ~100%SL	80%
	S5 †	CB 21 x 62	North End		100%	
			Midspan		Perforation 2" H, web buckled	
			South End			

† Indicates critical stringer location - See Bridge Condition section of inspection report.

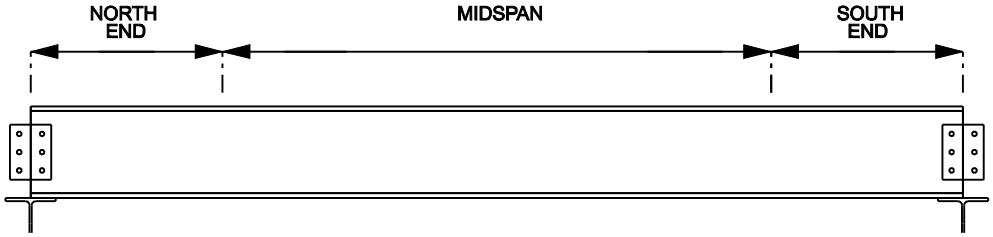
*Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.



Span 5 - Stringers				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 9	S1	CB 21 x 73	North End		Perforations 2"H at bottom, 3" H at top	49%
			Midspan			32%
			South End		27%	16%
	S5 †	CB 21 x 73	North End		Perforation, web buckled	
			Midspan			
			South End			
Panel 10	S1	CB 21 x 73	North End		27%	
			Midspan			32%
			South End		27%	16%
	S5	CB 21 x 73	North End		55% SL x 2"H, 14% else	
			Midspan		Perforation 3.5"H, 50% SL 3.5" H	32%
			South End		55% SL x 8"H	
Panel 11	S1	CB 21 x 73	North End			
			Midspan	41%		83%
			South End		27%	
	S2	CB 24 x 85	North End		14%	
			Midspan			
			South End			
	S5	CB 21 x 73	North End		27% x 2"H, 14% else	8%
			Midspan		27% SL to 6" H	8%
			South End			8%
Panel 12	S1	CB 21 x 73	North End	24%	27%	17%
			Midspan	17%		17%
			South End		27%	24%
	S5	CB 21 x 73	North End	17%		
			Midspan	17%		
			South End	17%		
Panel 13	S1	CB 21 x 73	North End	24%		100%
			Midspan			32%
			South End			
	S5	CB 21 x 73	North End			
			Midspan			17%
			South End			
Panel 12'	S1	CB 21 x 73	North End	24%		100%
			Midspan			32%
			South End			
	S5	CB 21 x 73	North End	24%		66%
			Midspan			
			South End			

† Indicates critical stringer location - See Bridge Condition section of inspection report.

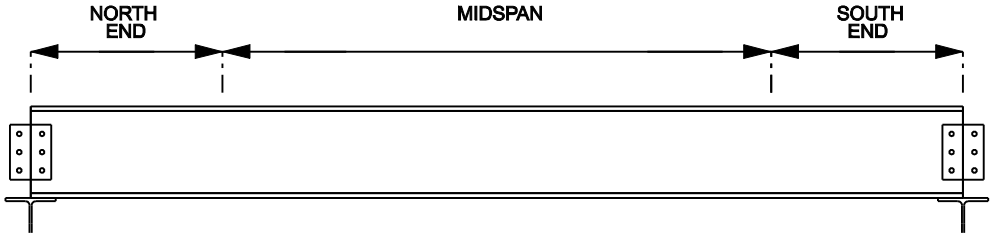
*Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.



Span 5 - Stringers (cont.)				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 11'	S1	CB 21 x 73	North End		41% SL x 4" H	17%
			Midspan	17%	41% SL to 4"H	17%
			South End		55%	66%
	S5	CB 21 x 73	North End	17%		
			Midspan	17%		
			South End	17%		
Panel 10'	S1	CB 21 x 73	North End		41% x 4" H	17%
			Midspan	17%	41% to 4"H	17%
			South End		55%	66%
	S5	CB 21 x 73	North End	75%	41% x 4" H	
			Midspan	75%	41% x 4" H	16%
			South End	75%	55%	
Panel 9'	S1	CB 21 x 73	North End		27% FH	
			Midspan	66%	27% SL x 2" H at bottom, 4" H at top	66%
			South End		1"H perforation	66%
	S5	CB 21 x 73	North End	17%	Perforation 1"H, 55% SL 4" H	34%
			Midspan	17%	55% SL to 5" H	34%
			South End	17%	2"x1" perforation	34%

† Indicates critical stringer location - See Bridge Condition section of inspection report.

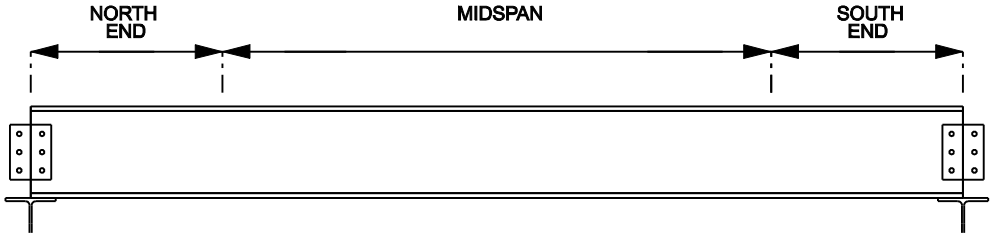
*Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.



Span 6 - Stringers				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 8'	S1	CB 21 x 62	North End			41%
			Midspan	59%	63% 2"H	41%
			South End		63%	41%
	S5	CB 21 x 62	North End		31% FH	
			Midspan			
			South End			
Panel 7'	S1	CB 21 x 62	North End		Perforations to pap. thin ~ 100% SL	
			Midspan	80%	31% 6"H	39%
			South End		Two perforations 3"H at top and bottom	
	S5 †	CB 21 x 62	North End			
			Midspan	20%		20%
			South End		100% SL, member crippled	
Panel 6'	S1 †	CB 21 x 62	North End	59%	100% FH	80%
			Midspan	59%	No connection to deck	
			South End	59%	100% FH	80%
	S5	CB 21 x 62	North End	20% min	100%	49%
			Midspan	20% min		20% min
			South End	20% min	47%	20% min
Panel 5'	S1	CB 21 x 62	North End	39%	63%	
			Midspan	90%	47% 6"H	59%
			South End		53%	80%
	S5	CB 21 x 62	North End			
			Midspan			10%
			South End		Perforation 4"H, 31% SL else	79%
Panel 4'	S1	CB 21 x 62	North End		47% FH	64%
			Midspan	59%		100%
			South End	100% 9"L	Perforation 3" H	
	S5	CB 21 x 62	North End		31% FH	
			Midspan			
			South End		31% x 8" H and 4" H x full thickness remain	
Panel 3'	S1	CB 21 x 62	North End			
			Midspan		No connection to deck	100%
			South End			49%
	S5	CB 21 x 62	North End		100% SL	90%
			Midspan			
			South End		Perforation 2" H, 31% SL else	

† Indicates critical stringer location - See Bridge Condition section of inspection report.

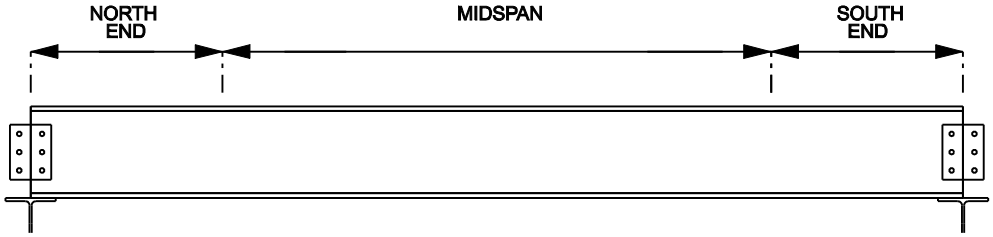
*Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.



Span 6 - Stringers (cont.)				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 2'	S1 †	CB 21 x 62	North End			59%
			Midspan	59%	No connection to deck on south half of length	100%
			South End		100%, no connection to deck	
	S2	CB 24 x 74	North End			
			Midspan			
			South End		15%	
	S3	CB 24 x 74	North End		22%	
			Midspan			
			South End		15%	
	S4	CB 24 x 74	North End			
			Midspan			
			South End		15% FH	
	S5	CB 21 x 62	North End		31% 1'W	
			Midspan			
			South End		100% SL	59%
Panel 1'	S1	CB 21 x 62	North End	59%	Perforation 1" H, 78% SL	59%
			Midspan	59%	31% SL 12"H (6" Top, 6" Bottom), Perforation 2" H at top	59%
			South End	100%	Perforation 8" H, 31% SL	59%
	S5	CB 21 x 62	North End		Perforations 2" H at bottom, 4" H at top, 31% SL else	
			Midspan	20%	16% SL 6"x5"	20%
			South End		100% SL, Member crippled	59%
Panel 0'	S1 †	CB 21 x 62	North End	80%	Perforation, Pap thin, ~100% SL	39%
			Midspan	80%	Perforation 1.5"H, 63% SL, web crippled	80%
			South End		1" Perforation, 31% else	
	S3	CB 24 x 74	North End	9%	15%	
			Midspan	9%		
			South End	9%		
	S4	CB 24 x 74	North End	9%		
			Midspan	9%		
			South End	9%	72%	
	S5	CB 21 x 62	North End	20%	31%	
			Midspan	20%	63% x 3" H	
			South End	20%	Pap thin x 5" rem. ~ 100% SL	59%

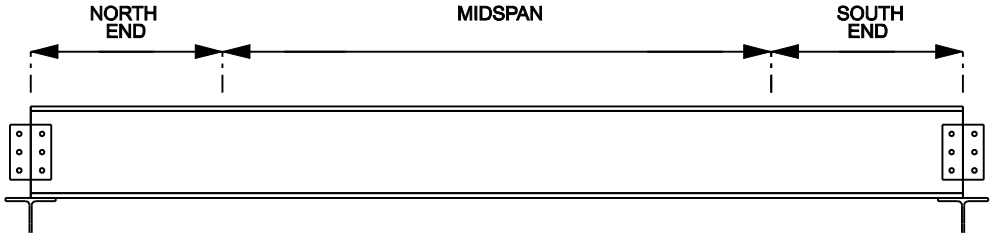
† Indicates critical stringer location - See Bridge Condition section of inspection report.

*Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.



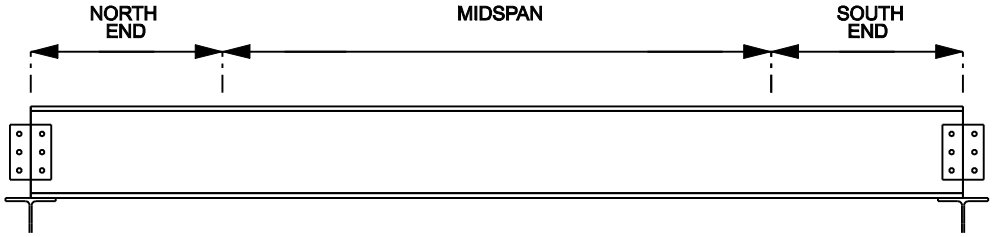
Span 7 - Stringers				Losses		
Location		Member Size	Location on Member	Top Flange	Web	Bottom Flange
Panel 1	S1	CB20x55	North End		Perforation to 1" H	56%
			Midspan	22%	Perforation to 2" H	78%
			South End		2 Perforations both to 3"H	78%
	S2	CB21x67	North End			
			Midspan			
			South End			65%
	S3	CB21x67	North End			
			Midspan			
			South End			65%
	S4	CB21x67	North End			
			Midspan			
			South End		Perforation 5" H	100%
	S5 †	CB20x55	North End	22%	Web crippled, Perforation 8" H x 66% SL	78%
			Midspan	34%	Perforation 5"H	78%
			South End	22%	Perforation 2.75" H, 50%SL 3/4" H at bottom	29%
Panel 2	S1	CB20x55	North End	22%	2 Perforations both to 3" H	78%
			Midspan	22%	34% SL to 6" H	34%
			South End	22%	2 Perforations to 4" H and 3" H	78%
	S3	CB21x67	North End			29%
			Midspan			18%
			South End			
	S5 †	CB20x55	North End	22%	Perforation 3"H	19%
			Midspan	22%	Perforation 3"H	22%
			South End	22%	Web crippled, 100% SL	50%
Panel 3	S1	CB20x55	North End	22%	34%	56%
			Midspan	22%		19%
			South End	22%	2 Perforations to 6" H and 3" H	89%
	S5	CB20x55	North End	22%	Two Perforations 2" H and 1" H Top and bottom. 17% SL else	11%
			Midspan	22%	8%	29%
			South End	22%	Three Perforations 3.5"H, two 2"H	29%
Panel 4	S1	CB20x55	North End		Perforation 4" H	79%
			Midspan		34%	56%
			South End		Perforation 7" H, 34% SL else	72%
	S5	CB20x55	Midspan	22%	100%	64%
			North End	22%	Perforation 3"H	
			South End	22%	32% SL x 5"H, 66% SL else	100%
Panel 5	S1	CB20x55	North End	22%	Two Perforations 8" H and 5" H	78%
			Midspan	22%		29%
			South End	22%	Perforation 5" H	56%
	S5 †	CB20x55	North End	22%	100% SL - Connection plate removed by hand	78%
			Midspan	22%	Hole 2" H, 17% SL else	78%
			South End	22%	100% SL	26%

† Indicates critical stringer location - See Bridge Condition section of inspection report.



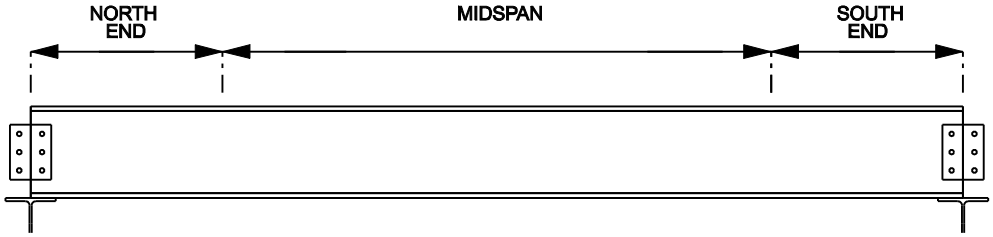
Span 7 - Stringers (cont.)				Losses		
Location		Size	Location on Member	Top Flange	Area	Web
Panel 6	S1 †	CB20x55	North End	56%	Perforation at TF to 2" H	56%
			Midspan	78%	Web buckled, Perforation at TF to 2" H	39%
			South End	56%	100%	25%
	S5 †	CB20x55	North End	22%	66% SL x 8"H	100%
			Midspan	22%	34% SL	50%
			South End	22%	100% SL - Connection plate removed by hand	100%
Panel 7	S1 †	CB20x55	North End	78%	34% SL x 4"H	100%
			Midspan	22%	34% SL x 4"H	90%
			South End	22%	100%	100%
	S5	CB20x55	North End	22%	Two Perforations 3"H and 2"H	13%
			Midspan	22%	Two Perforations 3"H and 2"H	50%
			South End	22%	100% SL	50%
Panel 8	S1 †	CB20x55	North End	91%	Two Perforations 4" H and 3" H, 64% SL to 2" H, 32% SL else	18%
			Midspan	75%	32% SL to 4" H	65%
			South End	75%	32% SL to 4"H	91%
	S5 †	CB20x55	North End		Two Perforations 4" H and 5"H, web crippled	78%
			Midspan	22%	Perforation 4" H, 17% SL else	22%
			South End		100% SL	67%

† Indicates critical stringer location - See Bridge Condition section of inspection report.

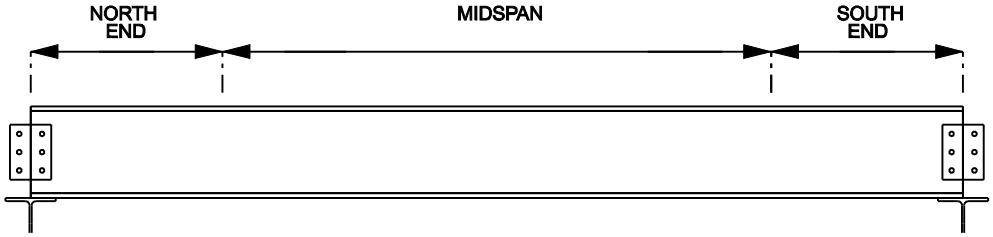


Span 8 - Stringers				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 14	S1	CB 20 x 55	North End	20%	Full perf. along Bott. & above conn. PL	10%
			Midspan	20%		10%
			South End	20%	Full perf. below PL w/ 25% around/above PL	10%
	S3	CB 21¼ x 67	North End		Full perf. below conn. PL	
			Midspan			
			South End			
	S5 †	CB 20 x 55	North End			
			Midspan	25%	Full perforations along Bott	80%
			South End		Full perf. @ conn. PL	
Panel 13	S1	CB 20 x 55	North End	10%	Full perf. @ conn. PL	5%
			Midspan	10%		5%
			South End	10%	Full perf. below PL w/ 40% around/above PL	5%
	S5	CB 20 x 55	North End		Full perf. @ conn. PL	
			Midspan	10%		10%
			South End		25% @ conn. PL	
Panel 12	S1	CB 20 x 55	North End	10%	Full perf. below PL w/ 70% @ conn. PL	5%
			Midspan	10%		5%
			South End	10%	Full perf. below PL w/ 50% @ conn. PL	5%
	S5 †	CB 20 x 55	North End		Full perforation along Bott w/ 50% @ conn. PL	
			Midspan		Full perforation along Bott	90%
			South End		Full perforation along Bott w/ 90% @ conn. PL	
Panel 11	S1 †	CB 20 x 55	North End	5%	Full perforation along Bott. w/ 50% @ conn. PL	
			Midspan	5%	Full perforation along Bott.	60%
			South End	5%	Full perf. below/above PL w/ 50% around PL	
	S5	CB 20 x 55	North End		25% @ conn. PL	
			Midspan	5%		5%
			South End		50% @ conn. PL	
Panel 10	S1 †	CB 20 x 55	North End	10%	Full perf. below PL w/ 50% above/around PL	
			Midspan	10%		40%
			South End	10%	Full perf. below/above PL w/ 25% around PL	
	S5	CB 20 x 55	North End		50% @ conn. PL	
			Midspan	75%		25%
			South End		50% @ conn. PL	
Panel 9	S1 †	CB 20 x 55	North End	20%	Full perf and buckling along Bott. w/ 50% @ conn. PL	
			Midspan	20%		40%
			South End	20%	Full perf along Bott. w/ 50% @ conn. PL	
	S5 †	CB 20 x 55	North End		Full perf. below PL w/ 90% above/around PL	
			Midspan	25%	Full perforation along Bott.	75%
			South End		25% @ conn. PL	

† Indicates critical stringer location - See Bridge Condition section of inspection report.



Span 8 - Stringers (cont.)				Losses		
Location		Size	Location on Member	Top Flange	Web	Bottom Flange
Panel 8	S1	CB 20 x 55	North End	25%	Full perforation along Bott w/ 50% @ conn. PL	
			Midspan	25%		80%
			South End	25%	Full perf. below/above PL w/ 70% around PL	
	S5	CB 20 x 55	North End		25% @ conn. PL	
			Midspan	25%		50%
			South End		Full perforation below PL w/ 25% @ conn. PL	
Panel 7	S1	CB 20 x 55	North End	25%	Full perforation along Bott 70% @ conn. PL	
			Midspan	25%	90% along Bott.	60%
			South End	25%	Full perf. below PL w/ 75% above/around PL	
	S5	CB 20 x 55	North End		25% @ conn. PL	
			Midspan	5%	5%	25%
			South End		50% @ conn. PL	

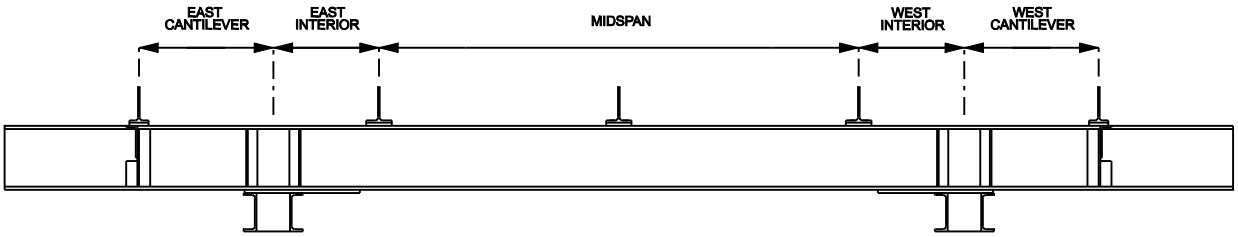


Span 9 - Stringers				Losses		
Location		**Size**	**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
Panel 6	S1	CB 20 x 55	North End	25%	Full perf. below PL w/ 75% @ conn. PL	
			Midspan	25%		40%
			South End	25%	Full perf. below PL w/ 75% @ conn. PL	
	S5	CB 20 x 55	North End	5%	Full perforation along Bott w/ 75% @ conn. PL	10%
			Midspan	5%		10%
			South End	5%	Full perf. below PL w/ 75% @ conn. PL	10%
Panel 5	S1 †	CB 20 x 55	North End	25%	Full perf. below PL w/ 75% @ conn. PL	
			Midspan	25%		30%
			South End	25%	Full perforation along Bott w/ 80% @ conn. PL	
	S5	CB 20 x 55	North End	10%	Full perf. below PL w/ 75% @ conn. PL	10%
			Midspan	10%	75% along Bott.	10%
			South End	10%	Full perf. below PL w/ 75% @ conn. PL	10%
Panel 4	S1 †	CB 20 x 55	North End	15%	Full perforation along Bott w/ 75% @ conn. PL	
			Midspan	15%		25%
			South End	15%	Full perf. below PL w/ 25% @ conn. PL	
	S5	CB 20 x 55	North End	10%	Full perf. above PL w/ 75% @ conn. PL	
			Midspan	10%		20%
			South End	10%	Full perf. below PL w/ 75% @ conn. PL	
Panel 3	S1	CB 20 x 55	North End	25%	Full perf. below PL w/ 75% @ conn. PL	
			Midspan	25%		40%
			South End	25%	Full perf. below/above PL w/ 25% @ PL	
	S5	CB 20 x 55	North End	10%	Full perf. below PL w/ 75% @ conn. PL	5%
			Midspan	10%		5%
			South End	10%	75% below/above PL w/ 25% @ PL	5%
Panel 2	S1	CB 20 x 55	North End		Full perf. above/below PL w/ 80% @ PL	
			Midspan	25%		10%
			South End		Full perf. above/below PL w/ 75% @ PL	
	S5	CB 20 x 55	North End		Full perf. above/below PL w/ 75% @ PL	
			Midspan	10%		10%
			South End		Full perf. above/below PL w/ 50% @ PL	
Panel 1	S1 †	CB 20 x 55	North End	25%	Full perf. below PL w/ 75% @ conn. PL	
			Midspan	25%	Full perforations along Bott.	40%
			South End	25%	Full perf. Top & Bott. w/ 75% @ PL	
	S5 †	CB 20 x 55	North End	25%	Full perf. below PL w/ 75% @ conn. PL	
			Midspan	25%	Perforations along Bott.	60%
			South End	25%	Full perf. below PL w/ 20% @ PL	

† Indicates critical stringer location - See Bridge Condition section of inspection report.

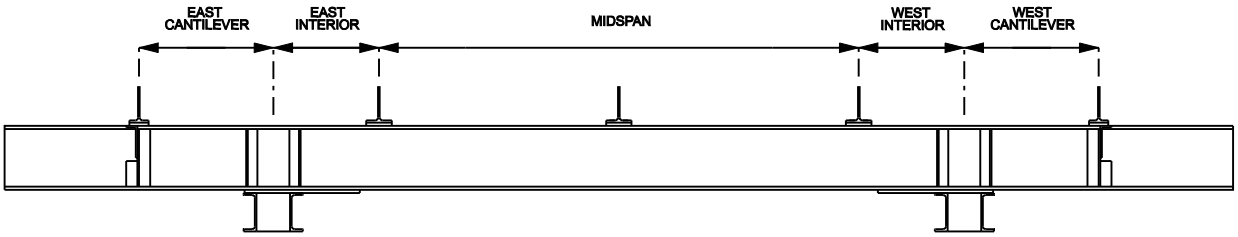
APPENDIX C – 2014 CONDITION TABLES

FLOORBEAMS



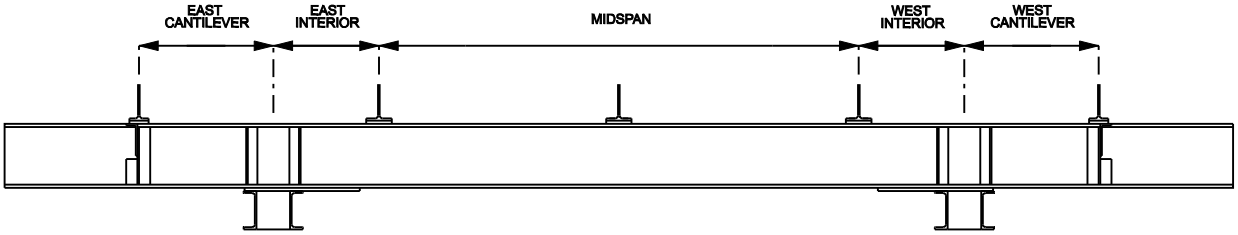
Span 1 - Floorbeam				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB0	End Floorbeam	CB 18 x 86	East End - Cantilever	15%		10%
			East End - Interior	15%		
			Midspan	10%		
			West End - Interior			
			West End - Cantilever	0% → 20%		0% → 10%
FB1	Intermediate Floorbeam	CB 18 x 86	East End - Cantilever			0% → 10%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever			
FB2	Intermediate Floorbeam	CB 18 x 86	East End - Cantilever	0% → 10%		
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever			0% → 20%
FB3	Intermediate Floorbeam	CB 18 x 86	East End - Cantilever	0% → 15%		0% → 10%
			East End - Interior			
			Midspan	10%		
			West End - Interior			
			West End - Cantilever			10%
FB4	Intermediate Floorbeam	CB 18 x 86	East End - Cantilever	0% → 15%		
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever			0% → 35%
FB5	Intermediate Floorbeam	CB 18 x 86	East End - Cantilever	10% → 15%		20%
			East End - Interior			
			Midspan			25%
			West End - Interior			
			West End - Cantilever			0% → 10%
FB6	End Floorbeam	CB 18 x 86	East End - Cantilever	20%		10%
			East End - Interior			
			Midspan			35%
			West End - Interior	15%		30%
			West End - Cantilever	20%	30%	10%

*Assume dimensions are full width/height unless otherwise noted.
*Transitional losses on cantilevered flanges area reported from the truss bearing → exterior stringer.
† Critial floorbeam location - See Bridge Condition section of inspection report.



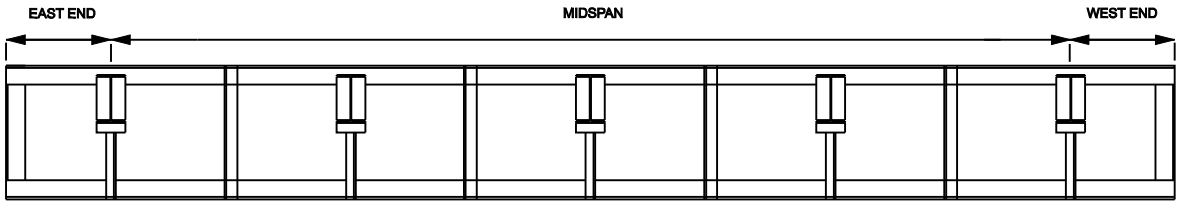
Span 2 - Floorbeam				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB0	End Floorbeam	CB20x80	East End - Cantilever	40%	15%	25%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	10% → 20%		0% → 15%
FB1	Intermediate Floorbeam	CB20x80	East End - Cantilever	40%		40%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever			20% → 15%
FB2	Intermediate Floorbeam	CB20x80	East End - Cantilever	25%		25%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever			
FB3	Intermediate Floorbeam	CB20x80	East End - Cantilever	40% → 75%		30%
			East End - Interior			
			Midspan	40%		10%
			West End - Interior			
			West End - Cantilever	40% → 10%	6" long perf. along Bott. @ S1	15% → 40%
FB4	Intermediate Floorbeam	CB20x80	East End - Cantilever	0% → 20%		
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 15%		
FB5	Intermediate Floorbeam	CB20x80	East End - Interior	0% → 20%		0% → 20%
			East End - Cantilever			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 15%		0% → 15%
FB6	Intermediate Floorbeam	CB20x80	East End - Interior			
			East End - Cantilever	0% → 10%		
			Midspan			
			West End - Interior			
			West End - Cantilever			0% → 15%

*Assume dimensions are full width/height unless otherwise noted.
*Transitional losses on cantilevered flanges area reported from the truss bearing → exterior stringer.
† Critial floorbeam location - See Bridge Condition section of inspection report.



Span 3 - Floorbeams				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB6	End Floorbeam	CB20x80	East End - Cantilever	31%		
			East End - Interior		1" Perforation	
			Midspan			
			West End - Interior			
			West End - Cantilever			47%
FB7	Intermediate Floorbeam	CB20x80	East End - Cantilever	12%	81% SL @ knee brace support and 1"x1" perforation.	23%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	53%		4%
FB8	Intermediate Floorbeam	CB20x80	East End - Cantilever	16%		
			East End - Interior	8%		
			Midspan			
			West End - Interior	8%		
			West End - Cantilever	14%		14%
FB9	Intermediate Floorbeam	CB20x80	East End - Cantilever	16%	26% SL x 6"H on web @ stringer KB	
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	38%		38%
FB10 †	Intermediate Floorbeam	CB20x80	East End - Cantilever	84%	4.5" Perforation	88%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	31%	26% SL	
FB11	Intermediate Floorbeam	CB20x80	East End - Cantilever	70%	26% SL x 9"H	72%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	69%	1/2"H perf @ top of web and 26% SL x 6" from bott flange	69%
FB12	Intermediate Floorbeam	CB20x80	East End - Cantilever	16%	26% SL x 6"H	16%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	84%	Perforation 6"H	
FB13	Intermediate Floorbeam	CB20x80	East End - Cantilever	16%	26% 4"H @ bottom of web	16%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever			
FB14	End Floorbeam	CB20x80	East End - Cantilever	56%	13% SL x 6"H North face, 26% SL x 8"H South face	
			East End - Interior			
			Midspan	8%		8%
			West End - Interior			16%
			West End - Cantilever	50%		63%

*Assume dimensions are full width/height unless otherwise noted.
† Critial floorbeam location - See Bridge Condition section of inspection report.

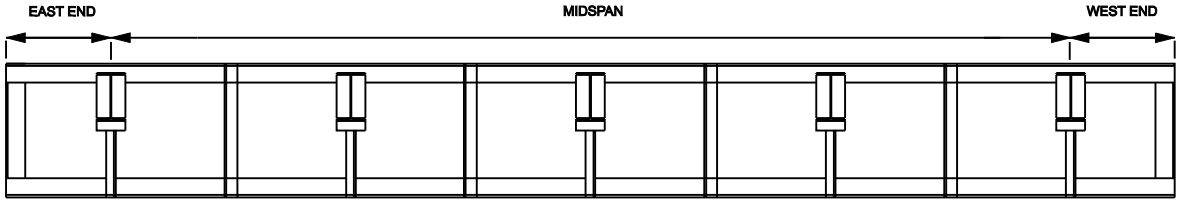


Span 4 - Floorbeams				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB0	End Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End			
			Midspan			
			West End	88%	Perforation 3"x1"H	
FB1	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	27%	Perforation 4"Wx1"H	
			Midspan			
			West End			
FB2	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	44%	Perforation 1"Hx3"W	88%
			Midspan			
			West End	65%		100%
FB3	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		Perforation 1.5"Hx6"W	65%
			Midspan			
			West End			
FB4	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		Perforation 2"x2"	
			Midspan			38%
			West End	88%		94%
FB5	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		Perforation 1"x4"	
			Midspan			
			West End	77%	20%	77%
FB6	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		2" Perforation	38%
			Midspan			
			West End	88%	67% x 9"H	38%
FB7	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	38%	Perforation 6"x2"	88%
			Midspan			
			West End	77%	33% x 16"H	77%
FB8	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	44%		38%
			Midspan			27%
			West End		17%	

*Assume dimensions are full width/height unless otherwise noted.

† Critial floorbeam location - See Bridge Condition section of inspection report.

Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.

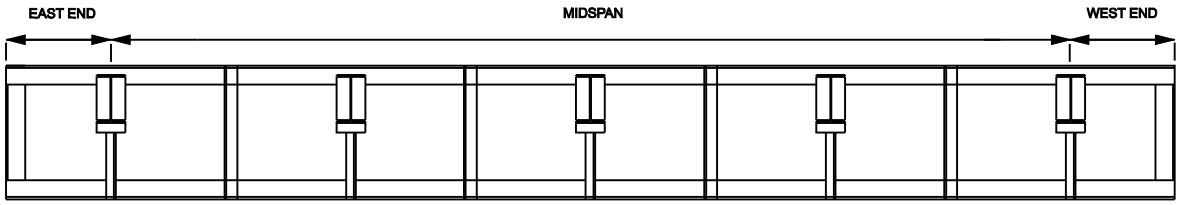


Span 5 - Floorbeams				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB9	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		33%	
			Midspan	47%		
			West End		17%	38%
FB10	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		17%	
			Midspan			
			West End	77%	17%	77%
FB11	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	47%		
			Midspan			
			West End			
FB12	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End			38%
			Midspan			
			West End			6%
FB13	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		67% x 14" H	
			Midspan			38%
			West End			
FB12'	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End			
			Midspan			
			West End		1" Perforations	38%
FB11'	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		33% x 16" H	
			Midspan			
			West End			
FB10'	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		33%	
			Midspan	12%		12%
			West End	12%	50% x 18" H	6%
FB9'	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	50%	83% x 16" H	
			Midspan	6%		6%
			West End	77%	33% x 10" H	38%

*Assume dimensions are full width/height unless otherwise noted.

† Critial floorbeam location - See Bridge Condition section of inspection report.

*Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.

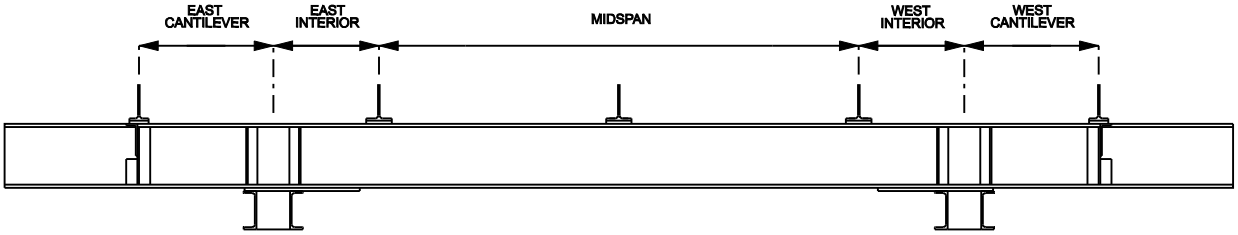


Span 6 - Floorbeams				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB8'	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		33%	38%
			Midspan			
			West End	12%	67% x 22" H	44%
FB7'	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	41%	33%	6%
			Midspan			
			West End	44%	50%	38%
FB6'	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End		Perforation 5"x3"	38%
			Midspan			6%
			West End	77%	17%	77%
FB5'	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	27%	33%	6%
			Midspan			
			West End	38%	33%	77%
FB4'	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	65%	50% x 14" H	77%
			Midspan			
			West End	38%	66% SL x 21" H	12%
FB3'	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	25%	33%	50%
			Midspan			
			West End	77%	67% x 16" H	77%
FB2'	Intermediate Floorbeam	Web PL40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	44%		12%
			Midspan			3%
			West End	88%	50%	88%
FB1'	Intermediate Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	38%	100% SL x 7"H	12%
			Midspan	44%		6%
			West End			33%
FB0'	End Floorbeam	Web PL 40x⅜; 2 L 6x6x⅝; PL 13x½ T&B	East End	69%	33% SL x 21"H	3%
			Midspan		50%	12%
			West End		50%	

*Assume dimensions are full width/height unless otherwise noted.

† Critial floorbeam location - See Bridge Condition section of inspection report.

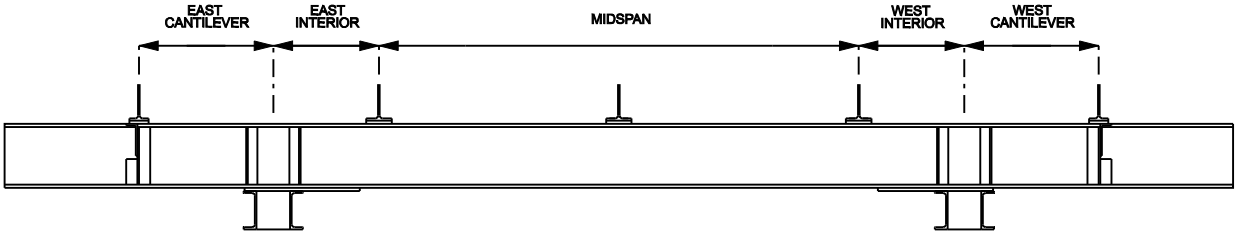
Spans 4-5-6 are symmetrical about Panel Point 13. Floorbeams north of FB13 are numbered 0 to 13. Floorbeams south of FB13 are numbered from 12' to 0'.



Span 7 - Floorbeams				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB0	End Floorbeam	CB20x80	East End - Cantilever	38%	Perforation 5" H at bottom, 50% SL 2" H	28%
			East End - Interior	16%		8%
			Midspan	19%	Perforation 3"H x 10"L, 50% SL 2" H	32%
			West End - Interior	16%	26% SL x 6"H at top and bott	16%
			West End - Cantilever	61%	Perforation 3"H	61%
FB1	Intermediate Floorbeam	CB20x80	East End - Cantilever	53%	Perforation 6" H, 50% SL 3" H	23%
			East End - Interior	53%		
			Midspan	38%		22%
			West End - Interior			
			West End - Cantilever	22%	Perforation 2" H	45%
FB2	Intermediate Floorbeam	CB20x80	East End - Cantilever	61%	Perforation 4" H at bottom	11%
			East End - Interior	16%		
			Midspan	16%		6%
			West End - Interior			
			West End - Cantilever	30%	Perforation 3" H at BF	49%
FB3	Intermediate Floorbeam	CB20x80	East End - Cantilever			
			East End - Interior			
			Midspan			16%
			West End - Interior			
			West End - Cantilever	16%	13%	23%
FB4	Intermediate Floorbeam	CB20x80	East End - Cantilever	53%	13%	53%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	30%		30%
FB5	Intermediate Floorbeam	CB20x80	East End - Cantilever	69%		40%
			East End - Interior			
			Midspan	8%		8%
			West End - Interior	19%	26% SL 6" H at top and bott	19%
			West End - Cantilever	19%	26% SL 6" H at top and bott	19%
FB6	Intermediate Floorbeam	CB20x80	East End - Cantilever	53%	Perforation 3" H, 50% SL 2" H, 13% SL else	19%
			East End - Interior			
			Midspan			8%
			West End - Interior			
			West End - Cantilever	19%	Perforation 2"H	19%
FB7	Intermediate Floorbeam	CB20x80	East End - Cantilever	19%	13%	16%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	19%		53%
FB8	End Floorbeam	CB20x80	East End - Cantilever			
			East End - Interior			16%
			Midspan	6%	Perforation 2.75"H	22%
			West End - Interior	88%		
			West End - Cantilever	88%	Perforation 3"H	69%

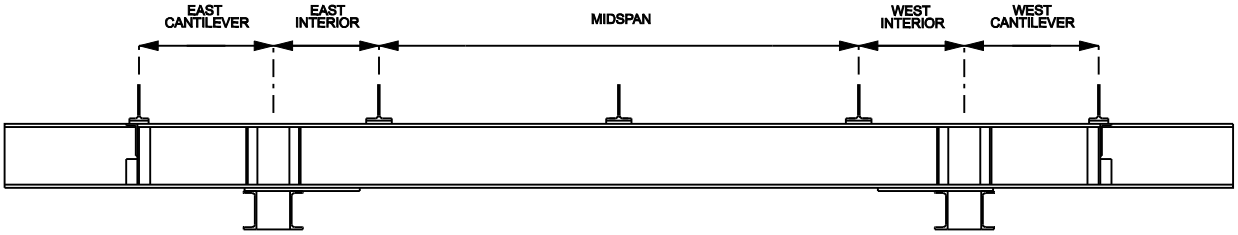
*Assume dimensions are full width/height unless otherwise noted.

† Indicates critical floorbeam location - See Bridge Condition section of inspection report.



Span 8 - Floorbeams				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB14 †	End Floorbeam	CB 20 x 80	East End - Cantilever	25% → 50%	Full perf. along Bott. 4"H 25% @ brg. full ht.	30%
			East End - Interior		Full perf. Along Bott 3"H	
			Midspan	40%	Full perf. Along Bott 3"H	40%
			West End - Interior		Full perf. Along Bott 3"H	
			West End - Cantilever	25% → 40%	Full perf. along Bott. 4"H 10% @ brg. full ht.	25% → 40%
FB13	Intermediate Floorbeam	CB 20 x 80	East End - Cantilever	20% @ S5		10% @ S5
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	15%		15%
FB12	Intermediate Floorbeam	CB 20 x 80	East End - Cantilever	0% → 30%		0% → 30%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	20%		20%
FB11	Intermediate Floorbeam	CB 20 x 80	East End - Cantilever	0% → 30%	Full perf. along Bott. @ S5 4"H	0% → 30%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	20%		20%
FB10	Intermediate Floorbeam	CB 20 x 80	East End - Cantilever	0% → 40%	Full perf. along T&B 4"H	0% → 30%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	20%		20%
FB9	Intermediate Floorbeam	CB 20 x 80	East End - Cantilever	0% → 40%	10%	0% → 40%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 30%		0% → 40%
FB8	Intermediate Floorbeam	CB 20 x 80	East End - Cantilever	0% → 40%	5%	0% → 40%
			East End - Interior			
			Midspan	30%		
			West End - Interior			
			West End - Cantilever	0% → 30%		40%
FB7	Intermediate Floorbeam	CB 20 x 80	East End - Cantilever	0% → 30%		0% → 30%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 35%	5%	0% → 30%
FB6	Intermediate Floorbeam	CB 20 x 80	East End - Cantilever	0% → 20%		0% → 20%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 15%	25% along Bott. 4"H	0% → 30%

*Assume dimensions are full width/height unless otherwise noted.
*Transitional losses on cantilevered flanges area reported from the truss bearing → exterior stringer.
† Indicates critical floorbeam location - See Bridge Condition section of inspection report.

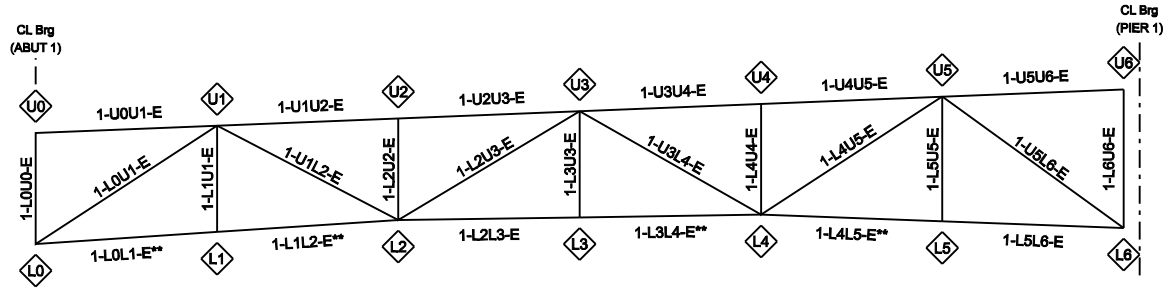


Span 9 - Floorbeam				Losses		
Member ID	**Member Type**		**Location on Member**	**Top Flange**	**Web**	**Bottom Flange**
FB5	Intermediate Floorbeam		East End - Cantilever	0% → 20%		0% → 15%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 40%	10%	30%
FB4	Intermediate Floorbeam		East End - Cantilever			
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 15%	5%	0% → 15%
FB3	Intermediate Floorbeam		East End - Cantilever	0% → 15%		15% @ S5
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 30%		0% → 30%
FB2	Intermediate Floorbeam		East End - Cantilever			
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 30%	5%	0% → 30%
FB1	Intermediate Floorbeam		East End - Cantilever	10%		10%
			East End - Interior	10%		10%
			Midspan			
			West End - Interior			
			West End - Cantilever	0% → 20%	5%	0% → 20%
FB0	End Floorbeam		East End - Cantilever	0% → 30%	5%	30%
			East End - Interior			
			Midspan			
			West End - Interior			
			West End - Cantilever	15% → 40%	5%	15% → 40%

*Assume dimensions are full width/height unless otherwise noted.
*Transitional losses on cantilevered flanges area reported from the truss bearing → exterior stringer.
† Critial floorbeam location - See Bridge Condition section of inspection report.

APPENDIX C – 2014 CONDITION TABLES

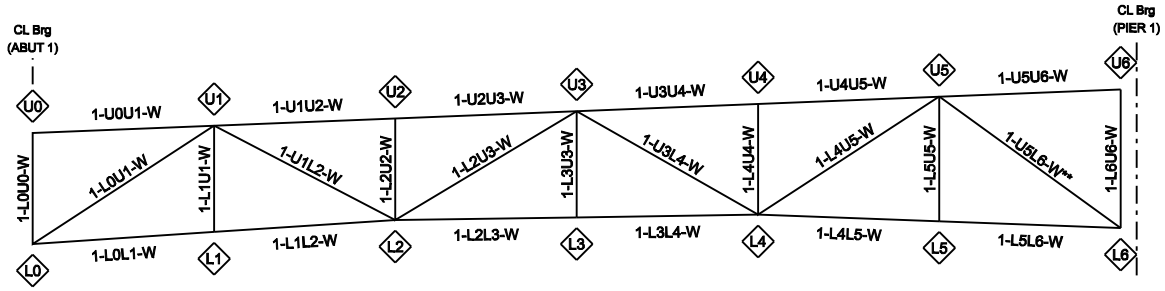
TRUSS MEMBERS



EAST TRUSS ELEVATION

Span 1 - East Truss						Losses				Comments
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	
L0U0	Vertical	C 12 x 25	Outer CH	7.32	6.94	1/8"			**5.2%**	
			Inner CH	7.32	7.13	1/16"			**2.6%**	
L1L2	Bott. Chord	C 12 x 40	Outer CH	11.73	11.52			1/16"	**1.8%**	
			Inner CH	11.73	11.30	1/16"		1/16"	**3.6%**	
L2U1	Diagonal	C 12 x 35	Outer CH	10.26	9.60	0.20"			**6.4%**	
			Inner CH	10.26	10.26					
L2L3	Bott. Chord	C 12 x 40	Outer CH	20.36	19.33	0.15"		0.15"	**5.0%**	
		2PL 11½ x ¾	Inner CH	20.36	19.72			3/16"	**3.1%**	
L3L4	Bott. Chord	C 12 x 40	Outer CH	20.36	19.56	1/8"		**100% x 1"	**3.9%**	**See Below
		2PL 11½ x ¾	Inner CH	20.36	19.29	1/4"		1/16"	**5.3%**	
L4L5	Bott. Chord	C 12 x 35	Outer CH	10.26	9.85			1/8"	**4.0%**	Heavy pack rust on lacing bars
			Inner CH	10.26	9.64			3/16"	**6.0%**	
U4U5	Top Chord	C 12 x 35	Outer CH	19.39	18.73			0.20"	**3.4%**	
	PL 18 x ⅜	2PL 11½ x ⅜	Inner CH	19.39	19.39					
L5L6	Bott. Chord	C 12 x 35	Outer CH	10.26	9.44	1/4"			**8.0%**	
		2PL 11½ x ½	Inner CH	10.26	8.82	1/16"		3/8"	**14.0%**	
L6U5	Diagonal	C 12 x 30	Outer CH	14.54	14.14	1/8"			**2.7%**	
		2PL 11½ x ½	Inner CH	14.54	13.35	1/8"		0.25"	**8.2%**	
L6U6	Vertical	C 12 x 25	Outer CH	7.32	7.20		1/16" x 2"		**1.7%**	
			Inner CH	7.32	7.32					

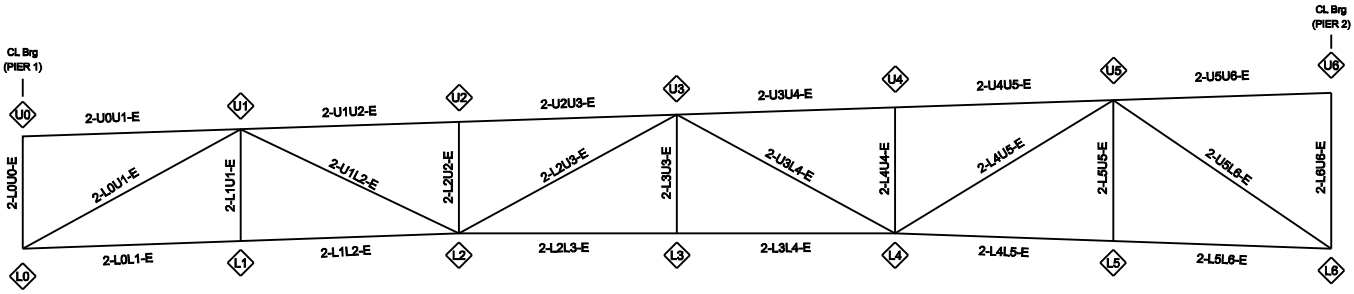
*Assume dimensions are full width/height unless otherwise noted.
*Plates are split between outer/inner members.
*Only controlling locations shown.
**Collision damage resulting in a 1" tear in bottom chord.



WEST TRUSS ELEVATION

Span 1 - West Truss						Losses				Comments
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	
L0U0	Vertical	C 12 x 25	Outer CH	7.32	7.32					
			Inner CH	7.32	7.13			1/16"	**2.6%**	
L0L1	Bott. Chord	C 12 x 40	Outer CH	11.73	11.09	3/16"			**5.5%**	
			Inner CH	11.73	11.73					
L2L3	Bott. Chord	C 12 x 40	Outer CH	20.36	18.21	1/4"		75%	**10.5%**	
		2PL 11½ x ¾	Inner CH	20.36	19.33			0.30"	**5.0%**	
L2U3	Diagonal	C 12 x 25	Outer CH	7.32	6.44	3/16"		0.10"	**12.0%**	
			Inner CH	7.32	7.32					
L3L4	Bott. Chord	C 12 x 40	Outer CH	20.36	19.08	1/8"		0.25"	**6.3%**	
		2PL 11½ x ¾	Inner CH	20.36	19.85	0.15"			**2.5%**	
L4L5	Bott. Chord	C 12 x 35	Outer CH	10.26	8.68	0.20"	0.10" x 1"	1/4"	**15.4%**	
			Inner CH	10.26	9.37		10% x 1"	50%	**8.7%**	
L4U5	Diagonal	C 12 x 35	Outer CH	10.26	9.60	0.20"			**6.4%**	Typical in multiple locations
			Inner CH	10.26	9.60	0.20"			**6.4%**	
L5L6	Bott. Chord	C 12 x 35	Outer CH	10.26	8.94	0.20"		0.20"	**12.8%**	Typical in multiple locations
			Inner CH	10.26	9.60			0.20"	**6.4%**	
L6U5	Diagonal	C 12 x 30	Outer CH	14.54	13.91	0.20"			**4.4%**	
		2PL 11½ x ½	Inner CH	14.54	13.91	0.20"			**4.4%**	
L6U6	Vertical	C 12 x 25	Outer CH	7.32	6.75	3/16"			**7.8%**	
			Inner CH	7.32	7.32					

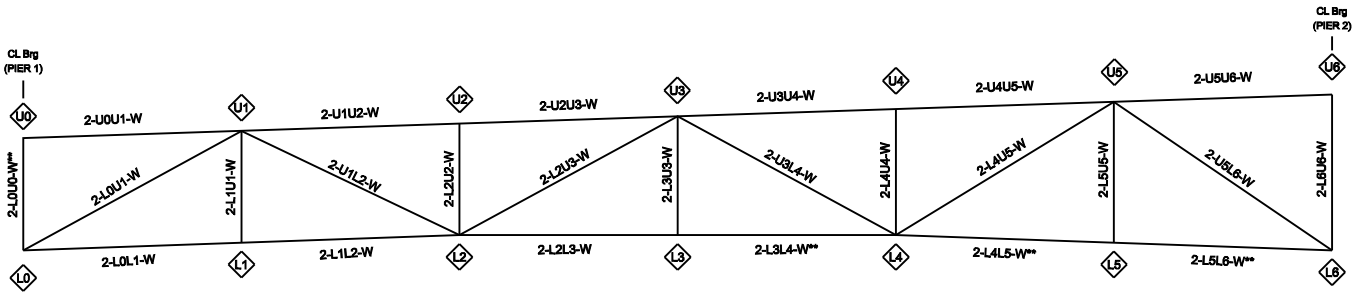
*Assume dimensions are full width/height unless otherwise noted.
*Plates are split between outer/inner members.
*Only controlling locations shown.



EAST TRUSS ELEVATION

Span 2 - East Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L0U0	Vertical	C 12 x 25	Outer CH	7.32	5.07		3/16"		**30.7%**	Multiple locations of loss
			Inner CH	7.32	4.05		80%		**44.7%**	
L0U1	Diagonal	C 12 x 40	Outer CH	11.73	11.73					
			Inner CH	11.73	11.52	1/16"			**1.8%**	
L0L1	Bott. Chord	C 12 x 35	Outer CH	10.26	8.69	1/8"	1/16"	1/8"	**15.3%**	
			Inner CH	10.26	9.44	1/8"		1/8"	**8.0%**	
L1L2	Bott. Chord	C 12 x 35	Outer CH	10.26	10.26					
			Inner CH	10.26	9.85	1/8"			**4.0%**	
L2U1	Diagonal	C 12 x 25	Outer CH	7.32	7.13	1/16"			**2.6%**	
			Inner CH	7.32	7.32					
L2U3	Diagonal	C 12 x 25	Outer CH	7.32	6.75	1/8"		1/16"	**7.8%**	
			Inner CH	7.32	6.71	0.20"			**8.3%**	
L2L3	Bott. Chord	C 12 x 35	Outer CH	10.26	9.19	0.20"		1/8"	**10.4%**	
			Inner CH	10.26	8.94	0.20"		0.20"	**12.8%**	
L3L4	Bott. Chord	C 12 x 35	Outer CH	10.26	9.60	0.20"			**6.4%**	
			Inner CH	10.26	9.60	0.20"			**6.4%**	
L4U3	Diagonal	C 12 x 35	Outer CH	10.26	9.60	0.20"			**6.4%**	
			Inner CH	10.26	9.60	0.20"			**6.4%**	
L4U5	Diagonal	C 12 x 40	Outer CH	11.73	10.79	0.15"		1/8"	**8.0%**	
			Inner CH	11.73	11.73					
L4L5	Bott. Chord	C 12 x 30	Outer CH	13.10	12.62	0.15"			**3.6%**	
		2PL 11½ x ⅜	Inner CH	13.10	12.27	0.20"		1/16"	**6.4%**	
L5L6	Bott. Chord	C 12 x 30	Outer CH	13.10	12.39	1/8"	1/16" x 5"		**5.4%**	
		2PL 11½ x ⅜	Inner CH	13.10	12.31	1/4"			**6.1%**	
L6U5	Diagonal	C 12 x 40	Outer CH	18.92	17.81	0.20"		1/8"	**5.9%**	Typical in multiple locations
		2PL 11½ x ⅝	Inner CH	18.92	18.49	1/8"			**2.3%**	

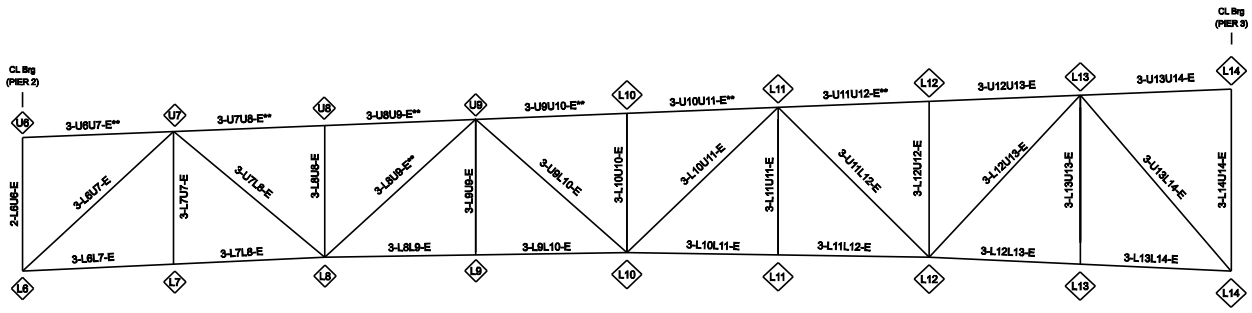
*Assume dimensions are full width/height unless otherwise noted.
*Plates are split between outer/inner members.
*Only controlling locations shown.



WEST TRUSS ELEVATION

Span 2 - West Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L0U0	Vertical	C 12 x 25	Outer CH	7.32	6.57		1/16"		**10.2%**	Multiple locations of loss and holes
			Inner CH	7.32	5.39		2" Wide Hole w/ 3" of Trans Around Hole		**26.4%**	
L0U1	Diagonal	C 12 x 40	Outer CH	11.73	10.36	0.20"		0.20"	**11.7%**	
			Inner CH	11.73	10.53	0.20"		0.15"	**10.2%**	
L0L1	Bott. Chord	C 12 x 35	Outer CH	10.26	8.94	0.20"		40%	**12.8%**	Heavy loss in top lacing bars
			Inner CH	10.26	9.03	1/8"		1/4"	**12.0%**	
L1L2	Bott. Chord	C 12 x 35	Outer CH	10.26	8.62	0.20"		0.30"	**16.0%**	
			Inner CH	10.26	9.60	0.20"			**6.4%**	
L2U1	Diagonal	C 12 x 25	Outer CH	7.32	6.71	0.20"			**8.3%**	
			Inner CH	7.32	6.71	0.20"			**8.3%**	
L2U3	Diagonal	C 12 x 25	Outer CH	7.32	6.94	1/8"			**5.2%**	
			Inner CH	7.32	6.94	1/8"			**5.2%**	
L2L3	Bott. Chord	C 12 x 35	Outer CH	10.26	8.94	0.20"		0.20"	**12.8%**	Typical in multiple locations
			Inner CH	10.26	9.64	3/16"			**6.0%**	
L3L4	Bott. Chord	C 12 x 35	Outer CH	10.26	8.94	0.20"		0.20"	**12.8%**	
			Inner CH	10.26	9.85	1/8"			**4.0%**	
L4U3	Diagonal	C 12 x 35	Outer CH	10.26	8.78	0.25"		0.20"	**14.4%**	Typical in multiple locations
			Inner CH	10.26	9.60	0.20"			**6.4%**	
L4U5	Diagonal	C 12 x 40	Outer CH	11.73	10.83	0.20"		1/16"	**7.7%**	
			Inner CH	11.73	10.65	1/8"		0.20"	**9.2%**	
L4L5	Bott. Chord	C 12 x 30	Outer CH	13.10	13.10					Hvy pack rust - member and PL
		2PL 11½ x ⅜	Inner CH	13.10	13.10					
L5U5	Vertical	C 12 x 25	Outer CH	7.32	6.95		1/16" x 6"		**5.1%**	
			Inner CH	7.32	7.32					
L5L6	Bott. Chord	C 12 x 30	Outer CH	13.10	11.83	0.20"		0.20"	**9.7%**	Typical in multiple locations
		2PL 11½ x ⅜	Inner CH	13.10	11.69	1/8"	1/16" x 1"	60%	**10.8%**	
L6U5	Diagonal	C 12 x 40	Outer CH	18.92	18.24	0.20"			**3.6%**	
		2PL 11½ x ⅝	Inner CH	18.92	18.49	1/8"			**2.3%**	

*Assume dimensions are full width/height unless otherwise noted.
*Plates are split between outer/inner members.
*Only controlling locations shown.



EAST TRUSS ELEVATION

Span 3 - East Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L6U7	Diagonal	C 15 x 45	Outer CH	20.42	18.22	0.20"	1/16"	0.15"	**10.8%**	
		2PL 14½ x ½	Inner CH	20.42	19.97	1/8"			**2.2%**	
L6L7	Bott. Chord	C 12 x 35	Outer CH	10.26	9.85	1/8"			**4.0%**	
			Inner CH	10.26	9.85	1/8"			**4.0%**	
L7L8	Bott. Chord	C 12 x 35	Outer CH	10.26	9.64	1/16"		1/8"	**6.0%**	
			Inner CH	10.26	10.05	1/16"			**2.0%**	
L8U7	Diagonal	C 12 x 35	Outer CH	14.57	14.26		1/16" x 5"		**2.1%**	
		2PL 11½ x ⅜	Inner CH	14.57	14.16	1/8"			**2.8%**	
L8U8	Vertical	C 12 x 25	Outer CH	7.32	6.95		1/16" x 6"		**5.1%**	
			Inner CH	7.32	7.32					
L8U9	Diagonal	C 12 x 30	Outer CH	8.79	8.39	1/8"			**4.5%**	
			Inner CH	8.79	8.79					
L8L9	Bott. Chord	C 12 x 35	Outer CH	14.57	13.95	1/8"		1/16"	**4.2%**	
		2PL 11½ x ⅜	Inner CH	14.57	14.16	1/8"			**2.8%**	
L9L10	Bott. Chord	C 12 x 35	Outer CH	14.57	13.75	1/8"		1/8"	**5.6%**	
		2PL 11½ x ⅜	Inner CH	14.57	13.75			50%	**5.7%**	
L10U11	Diagonal	C 12 x 25	Outer CH	7.32	6.75	1/16"		1/8"	**7.8%**	
			Inner CH	7.32	7.32					
L10L11	Bott. Chord	C 12 x 40	Outer CH	17.48	16.64	1/16"	1/8" x 5"		**4.8%**	Losses in multiple locations
		2PL 11½ x ½	Inner CH	17.48	16.48		1/8" x 8"		**5.7%**	
L11L12	Bott. Chord	C 12 x 40	Outer CH	17.48	16.84	1/8"		1/16"	**3.7%**	Losses in multiple locations
		2PL 11½ x ½	Inner CH	17.48	16.73		1/16"		**4.3%**	
L12U11	Diagonal	C 12 x 25	Outer CH	7.32	7.13	1/16"			**2.6%**	
			Inner CH	7.32	7.32					
L12U13	Diagonal	C 12 x 30	Outer CH	8.79	8.20	1/16"		1/8"	**6.8%**	
			Inner CH	8.79	8.39	1/8"			**4.5%**	
L12L13	Bott. Chord	C 12 x 30	Outer CH	8.79	8.39	1/16"		1/16"	**4.5%**	
			Inner CH	8.79	8.39	1/16"		1/16"	**4.5%**	
L13L14	Bott. Chord	C 12 x 30	Outer CH	8.79	8.00	1/8"		1/8"	**9.0%**	
			Inner CH	8.79	8.39	1/16"		1/16"	**4.5%**	
L14U13	Diagonal	C 12 x 40	Outer CH	16.04	15.83	1/16"			**1.3%**	
		2PL 11½ x ⅜	Inner CH	16.04	16.04					
L14U14	Vertical	C 12 x 25	Outer CH	7.32	6.95		1/16" x 6"		**5.1%**	
			Inner CH	7.32	7.32					

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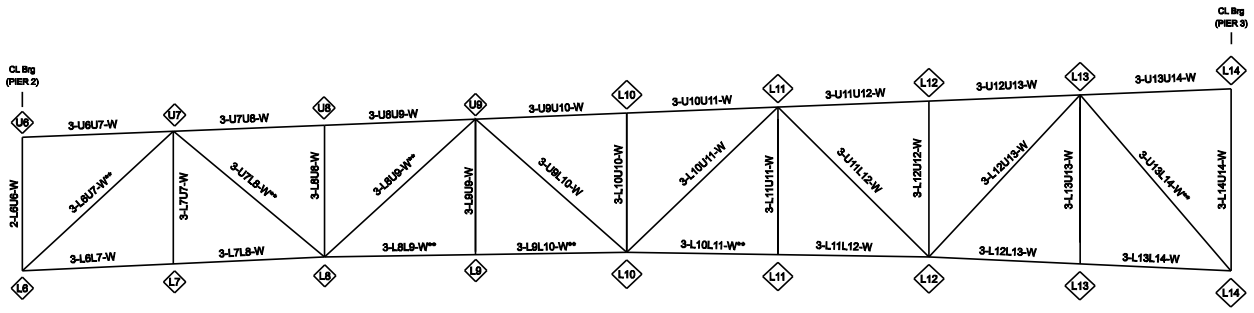
*Only controlling locations shown.



WEST TRUSS ELEVATION

Span 3 - West Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L6U7	Diagonal	C 15 x 45	Outer CH	20.42	19.74	1/8"		1/16"	**3.3%**	
		2PL 14½ x ½	Inner CH	20.42	19.97	1/16"		1/16"	**2.2%**	
L6L7	Bott. Chord	C 12 x 35	Outer CH	10.26	9.44	1/8"		1/8"	**8.0%**	
			Inner CH	10.26	9.64	1/16"		1/8"	**6.0%**	
L7L8	Bott. Chord	C 12 x 35	Outer CH	10.26	8.61	50%		50%	**16.1%**	
			Inner CH	10.26	9.85	1/16"		1/16"	**4.0%**	
L8U7	Diagonal	C 12 x 35	Outer CH	14.57	13.96	3/16"			**4.2%**	
		2PL 11½ x ⅜	Inner CH	14.57	14.37	1/16"			**1.4%**	
L8U9	Diagonal	C 12 x 30	Outer CH	8.79	8.16	0.20"			**7.2%**	
			Inner CH	8.79	8.59	1/16"			**2.3%**	
L8L9	Bott. Chord	C 12 x 35	Outer CH	14.57	13.91	0.20"			**4.5%**	
		2PL 11½ x ⅜	Inner CH	14.57	14.57					
L9L10	Bott. Chord	C 12 x 35	Outer CH	14.57	13.09	0.20"		1/4"	**10.2%**	
		2PL 11½ x ⅜	Inner CH	14.57	14.57					
L10U10	Vertical	C 12 x 25	Outer CH	7.32	7.13			1/16"	**2.6%**	
			Inner CH	7.32	7.32					
L10U11	Diagonal	C 12 x 25	Outer CH	7.32	6.94	1/8"			**5.2%**	
			Inner CH	7.32	6.94	1/8"			**5.2%**	
L10L11	Bott. Chord	C 12 x 40	Outer CH	17.48	16.37	1/8"		0.20"	**6.4%**	
		2PL 11½ x ½	Inner CH	17.48	16.24	1/16"		60%	**7.1%**	
L11U11	Vertical	C 12 x 25	Outer CH	7.32	6.71			0.20"	**8.3%**	Heavy loss in top lacing bars
			Inner CH	7.32	7.32					
L11L12	Bott. Chord	C 12 x 40	Outer CH	17.48	17.05	1/8"			**2.4%**	
		2PL 11½ x ½	Inner CH	17.48	16.11	0.20"		0.20"	**7.8%**	
L12U11	Diagonal	C 12 x 25	Outer CH	7.32	7.13	1/16"			**2.6%**	
			Inner CH	7.32	7.32					
L12U13	Diagonal	C 12 x 30	Outer CH	8.79	7.84	0.15"		0.15"	**10.8%**	
			Inner CH	8.79	8.39	1/8"			**4.5%**	
L12L13	Bott. Chord	C 12 x 30	Outer CH	8.79	7.04	0.20"		70%	**19.9%**	
			Inner CH	8.79	8.16			0.20"	**7.2%**	
L13L14	Bott. Chord	C 12 x 30	Outer CH	8.79	7.64	1/16"		60%	**13.1%**	
			Inner CH	8.79	7.90	1/16"	5%	1/8"	**10.1%**	
L14U13	Diagonal	C 12 x 40	Outer CH	16.04	15.83	1/16"			**1.3%**	
		2PL 11½ x ⅜	Inner CH	16.04	15.61	1/8"			**2.7%**	
L14U14	Vertical	C 12 x 25	Outer CH	7.32	6.52	0.20"		1/16"	**10.9%**	
			Inner CH	7.32	7.32					

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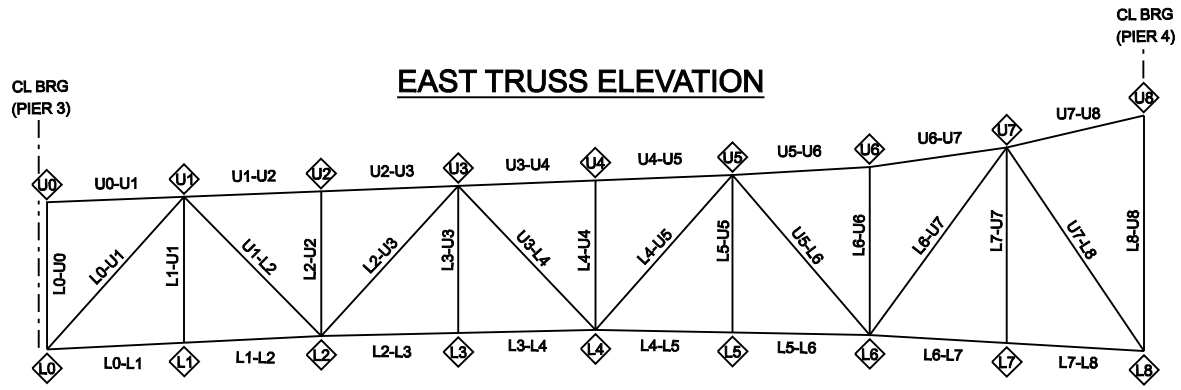
*Only controlling locations shown.



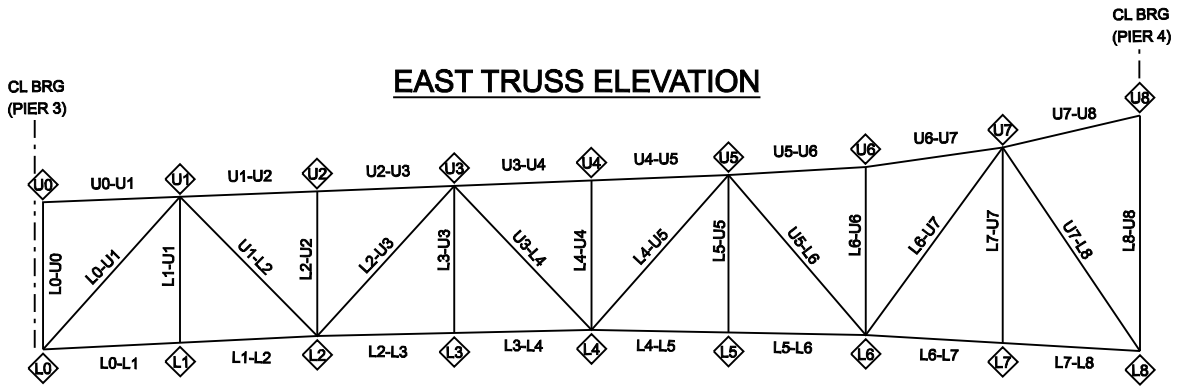
Span 4 - East Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L0U0	Vertical	C 12 x 25	Inner CH	7.31	4.67	3/16"	1/8"	3/16"	**36.2%**	
			Outer CH	7.31	5.42	3/16"	1/16"	3/16"	**25.9%**	
L0L1	Bott. Chord	C 18 x 42.7	Inner CH	12.48	9.24	1/8"	1/8"	1/8"	**26.0%**	Pack rust and SL on lace bars
			Outer CH	12.48	9.24	1/8"	1/8"	1/8"	**26.0%**	
L0U1	Diagonal	C 18 x 51.9	Inner CH	15.18	11.90	1/8"	1/8"	1/8"	**21.6%**	
			Outer CH	15.18	11.90	1/8"	1/8"	1/8"	**21.6%**	
U0U1	Top Chord	C 18 x 42.7	Inner CH	15.48	15.48					
		PL 16 x ⅜	Outer CH	15.48	13.23		1/8"		**14.5%**	
L1U1	Vertical	C 12 x 25	Inner CH	7.31	4.67	3/16"	1/8"	3/16"	**36.2%**	
			Outer CH	7.31	4.67	3/16"	1/8"	3/16"	**36.2%**	
L1L2	Bott. Chord	C 18 x 42.7	Inner CH	12.48	9.24	1/8"	1/8"	1/8"	**26.0%**	Pack rust and SL on lace bars
			Outer CH	12.48	9.24	1/8"	1/8"	1/8"	**26.0%**	
U1L2	Diagonal	C 15 x 33.9	Inner CH	9.90	9.26	1/8"	4.5" H hole	1/16"	**6.4%**	
			Outer CH	9.90	8.95	1/8"	1" corr hole	1/16"	**9.6%**	
U1U2	Top Chord	C 18 x 42.7	Inner CH	15.48	15.48					
		PL 16 x ⅜	Outer CH	15.48	14.35		1/16"		**7.3%**	
L2U2	Vertical	C 12 x 25	Inner CH	7.31	5.80	1/16"	1/16"	3/16"	**20.7%**	
			Outer CH	7.31	6.56		1/16"		**10.3%**	
L2L3	Bott. Chord	C 18 x 58	Inner CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	Pack rust and SL on lace bars
			Outer CH	16.98	15.06	1/8"	1/16"	1/16"	**11.3%**	
L2U3	Diagonal	C 15 x 33.9	Inner CH	9.90	6.01	3/16"	Two 1 1/2" holes, 3 1/2"H with 1/8" Rem.	1/16"	**39.3%**	SL on lacing bars
			Outer CH	9.90	8.89	3/16"	1/4" at 1 1/2"H		**10.2%**	
U2U3	Top Chord	C 18 x 42.7	Inner CH	15.48	15.48					
		PL 16 x ⅜	Outer CH	15.48	13.23		1/8"		**14.5%**	
L3U3	Vertical	C 12 x 25	Inner CH	7.31	5.24	1/16"	1/8"	1/8"	**28.3%**	Pack rust and SL on lace bars
			Outer CH	7.31	5.99	1/16"	1/16"	1/8"	**18.1%**	
L3L4	Bott. Chord	C 18 x 58	Inner CH	16.98	15.70	1/16"	1/4" x 3" H	1/16"	**7.5%**	
			Outer CH	16.98	15.33	1/16"	1/8" half of ht	1/16"	**9.7%**	
U3L4	Diagonal	C 15 x 33.9	Inner CH	9.90	7.95	3/16"	1/8" x 6"H, 1/16" Rem. rest of ht		**19.7%**	
			Outer CH	9.90	8.03		1/8"		**18.9%**	
U3U4	Top Chord	C 18 x 42.7	Inner CH	15.48	15.48					
		PL 16 x ⅜	Outer CH	15.48	14.35		1/16"		**7.3%**	
L4U4	Vertical	C 12 x 25	Inner CH	7.31	4.86	1/8"	1/8"	3/16"	**33.6%**	
			Outer CH	7.31	4.86	1/8"	1/8"	3/16"	**33.6%**	
L4L5	Bott. Chord	C 18 x 42.7	Inner CH	12.48	10.99	1/8"	1/4" x 2"H	1/8"	**11.9%**	Pack rust and SL on lace bars
			Outer CH	12.48	10.99	1/8"	1/8" x 4"H	1/8"	**11.9%**	

*Assume dimensions are full width/height unless otherwise noted.

*Plates are split between outer/inner members.

*Only controlling locations shown.

*Spans 4-5-6 are symmetrical about Panel Point 13. Truss members north of panel point 13 are numbered 0 to 13. Truss members south of panel point 13 are numbered from 12' to 0'.



Span 4 - East Truss (cont.)						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L4U5	Diagonal	C 15 x 40	Inner CH	11.70	9.16	7/16"	1/4" x 4"H		**21.7%**	SL on lace bars, hole in batten PL
			Outer CH	11.70	8.50	7/16"	1/4" x 4"H	3/16"	**27.4%**	
U4U5	Top Chord	C 18 x 42.7	Inner CH	15.48	15.48					
		PL 16 x ⅜	Outer CH	15.48	13.23		1/8"		**14.5%**	
U5U6	Top Chord	C 18 x 42.7	Inner CH	15.48	15.23	1/16"			**1.6%**	
		PL 16 x ⅜	Outer CH	15.48	15.23	1/16"			**1.6%**	
L5U5	Vertical	C 12 x 25	Inner CH	7.31	4.86	1/8"	1/8"	3/16"	**33.6%**	SL on lacing bars
			Outer CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
L5L6	Bott. Chord	C 18 x 42.7	Inner CH	12.48	11.49	1/8"		1/8"	**7.9%**	Corrosion on lace bars
			Outer CH	12.48	10.37	1/8"	1/16"	1/8"	**16.9%**	
U5L6	Diagonal	C 18 x 58	Inner CH	16.98	12.36	3/8"	1/8"	3/16"	**27.2%**	
			Outer CH	16.98	14.61	3/8"		3/16"	**13.9%**	
L6U6	Vertical	C 12 x 25	Inner CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
			Outer CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
L6L7	Bott. Chord	C 18 x 42.7	Inner CH	19.04	18.05	1/8"		1/8"	**5.2%**	
		2PL 17½ x ⅜	Outer CH	19.04	16.96	1/8"	1/16"	1/8"	**10.9%**	
L6U7	Diagonal	C 18 x 58	Inner CH	16.98	15.33	1/8"	3/16" x 6" H		**9.7%**	
			Outer CH	16.98	15.33	1/8"	3/16" x 6" H		**9.7%**	
U6U7	Top Chord	C 18 x 42.7	Inner CH	15.48	14.98	1/8"			**3.2%**	
		PL 16 x ⅜	Outer CH	15.48	15.48					
L7U7	Vertical	C 12 x 25	Inner CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	
			Outer CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	
L7L8	Bott. Chord	C 18 x 42.7	Inner CH	19.04	17.68	1/8"	1/8" x 3"H	1/8"	**7.2%**	Pack rust and SL on lace bars
		PL 17½ x ⅜	Outer CH	19.04	18.05	1/8"		1/8"	**5.2%**	
U7L8	Diagonal	C 18 x 45.8	Inner CH	22.13	19.88		1/8"		**10.2%**	
		2PL 17½ x ½	Outer CH	22.13	19.88		1/8"		**10.2%**	
L8U8	Vertical	C 12 x 30	Inner CH	8.79	7.24	1/8"	1/16"	1/8"	**17.6%**	
			Outer CH	8.79	6.49	1/8"	1/8"	1/8"	**26.1%**	
L8L9	Bott. Chord	C 18 x 42.7	Inner CH	19.04	17.45	1/16"	1/16"	1/16"	**8.3%**	
		2PL 17½ x ⅜	Outer CH	19.04	18.55	1/16"		1/16"	**2.6%**	
L8U9	Diagonal	2L 4x4x13/16	Inner CH	60.51	57.76	3/16"	1/16"	3/16"	**4.5%**	
		2PL 20 x 9/16	Outer CH	60.51	59.01	3/16"		3/16"	**2.5%**	

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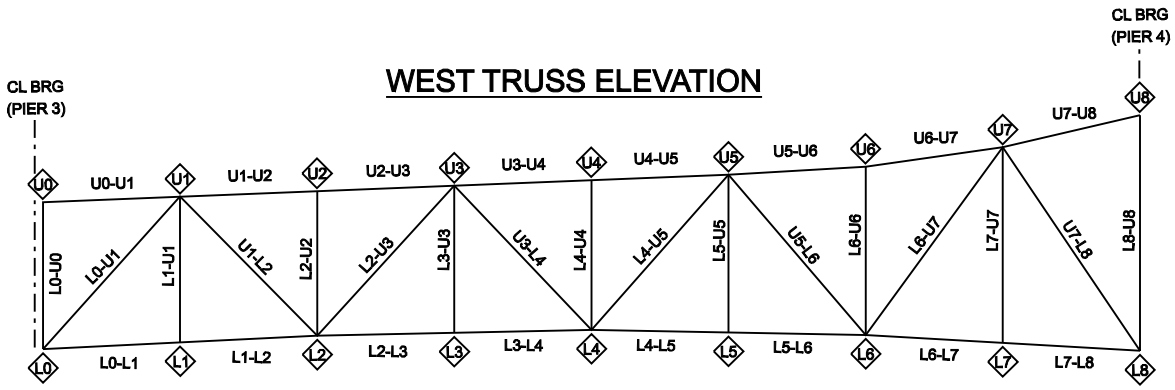
*Plates are split between outer/inner members.

*Only controlling locations shown.

*Spans 4-5-6 are symmetrical about Panel Point 13. Truss members north of panel point 13 are numbered 0 to 13. Truss members south of panel point 13 are numbered from 12' to 0'.

WEST TRUSS ELEVATION



Span 4 - West Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L0U0	Vertical	C 12 x 25	Inner CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	
L0L1	Bott. Chord	C 18 x 42.7	Inner CH	12.48	12.48	1/8"	1/8"	1/8"	**26.0%**	corr holes and SL on lace bars
			Outer CH	12.48	12.48	1/8"	1/8"	1/8"	**26.0%**	
L0U1	Diagonal	C 18 x 51.9	Inner CH	15.18	15.18	1/8"	1/8"	1/8"	**21.6%**	corr holes and SL on lace bars
			Outer CH	15.18	15.18	1/8"	1/8"	1/8"	**21.6%**	
L1U1	Vertical	C 12 x 25	Inner CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	
L1L2	Bott. Chord	C 18 x 42.7	Inner CH	12.48	12.48	1/8"	1/8"	1/8"	**26.0%**	SL on lacing bars
			Outer CH	12.48	12.48	1/8"	1/8"	1/8"	**26.0%**	
U1L2	Diagonal	C 15 x 33.9	Inner CH	9.90	9.90	1/8"	1/8"	1/8"	**27.5%**	SL on lacing bars
			Outer CH	9.90	9.90	1/8"	1/8"	1/8"	**27.5%**	
L2U2	Vertical	C 12 x 25	Inner CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	
L2L3	Bott. Chord	C 18 x 58	Inner CH	16.98	16.98	1/8"	1/8"	1/8"	**19.4%**	corr holes and SL on lace bars
			Outer CH	16.98	16.98	1/8"	1/8"	1/8"	**19.4%**	
L2U3	Diagonal	C 15 x 33.9	Inner CH	9.90	9.90	1/8"	1/8"	1/8"	**27.5%**	SL on lacing bars
			Outer CH	9.90	9.90	1/8"	1/8"	1/8"	**27.5%**	
L3U3	Vertical	C 12 x 25	Inner CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	
L3L4	Bott. Chord	C 18 x 58	Inner CH	16.98	16.98	1/8"	1/8"	1/8"	**19.4%**	corr holes and SL on lace bars
			Outer CH	16.98	16.98	1/8"	1/8"	1/8"	**19.4%**	
U3L4	Diagonal	C 15 x 33.9	Inner CH	9.90	9.90	1/8"	1/8"	1/8"	**27.5%**	SL on lacing bars
			Outer CH	9.90	9.90	1/8"	1/8"	1/8"	**27.5%**	
L4U4	Vertical	C 12 x 25	Inner CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	
L4L5	Bott. Chord	C 18 x 42.7	Inner CH	12.48	12.48	1/8"	1/8"	1/8"	**26.0%**	SL on lacing bars
			Outer CH	12.48	12.48	1/8"	3/16" x 6"H	1/8"	**16.9%**	
L4U5	Diagonal	C 15 x 40	Inner CH	11.70	11.70	3/16"	1/8"	1/8"	**25.4%**	SL on lacing bars
			Outer CH	11.70	11.70	3/16"	1/8"	1/8"	**25.4%**	

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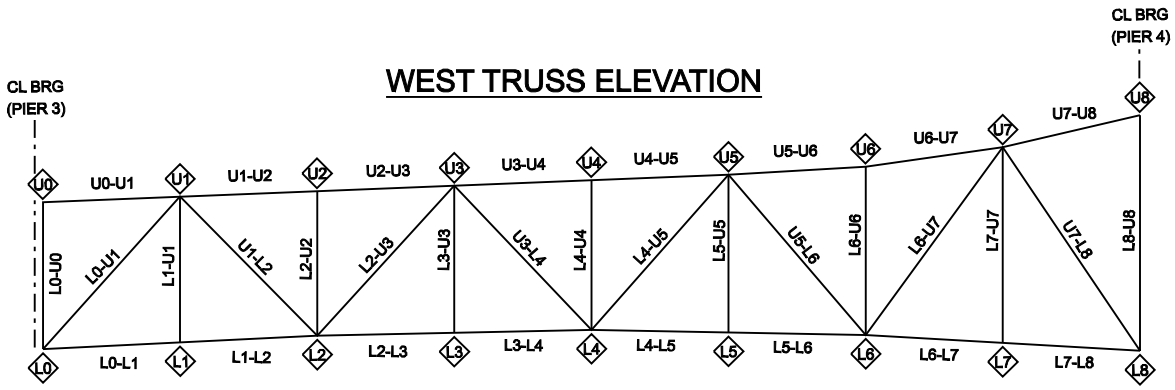
*Plates are split between outer/inner members.

*Only controlling locations shown.

*Spans 4-5-6 are symmetrical about Panel Point 13. Truss members north of panel point 13 are numbered 0 to 13. Truss members south of panel point 13 are numbered from 12' to 0'.

WEST TRUSS ELEVATION



Span 4 - West Truss (cont.)						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L5U5	Vertical	C 12 x 25	Inner CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	
L5L6	Bott. Chord	C 18 x 42.7	Inner CH	12.48	12.48	1/8"	1/8"	1/8"	**25.9%**	SL batten PL & lace bars
			Outer CH	12.48	12.48	1/8"	1/8"	1/8"	**25.9%**	
U5L6	Diagonal	C 18 x 58	Inner CH	16.98	16.98	1/8"	1/8"	1/8"	**19.4%**	SL on lacing bars
			Outer CH	16.98	16.98	1/8"	1/8"	1/8"	**19.4%**	
L6U6	Vertical	C 12 x 25	Inner CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	corr on batten PL & lace bars
			Outer CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	
L6L7	Bott. Chord	C 18 x 42.7	Inner CH	19.04	19.04	1/8"	1/8"	1/8"	**16.7%**	SL on lacing bars
		2PL 17½ x ⅜	Outer CH	19.04	19.04	1/8"	3/16" x 6"H	1/8"	**11.1%**	
L6U7	Diagonal	C 18 x 58	Inner CH	16.98	16.98	1/8"	1/8"	1/8"	**19.4%**	SL on lacing bars
			Outer CH	16.98	16.98	1/8"	1/8"	1/8"	**19.4%**	
L7U7	Vertical	C 12 x 25	Inner CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	7.31	1/8"	1/8"	1/8"	**31.0%**	
L7L8	Bott. Chord	C 18 x 42.7	Inner CH	19.04	19.04	1/8"	1/8"	1/8"	**16.7%**	SL on lacing bars
		PL 17½ x ⅜	Outer CH	19.04	19.04	1/8"	3/16" x 6"H	1/8"	**11.1%**	
U7L8	Diagonal	C 18 x 45.8	Inner CH	22.13	22.13	1/8"	1/8"	1/8"	**14.4%**	corr on batten PL & lace bars
		2PL 17½ x ½	Outer CH	22.13	22.13	1/8"	1/8"	1/8"	**14.4%**	
U7U8	Top Chord	C 18 x 51.9	Inner CH	24.74	24.74					
	PL 16 x ⅜	2PL 17½ x ⅜	Outer CH	24.74	24.74					
L8U8	Vertical	C 12 x 30	Inner CH	8.79	8.79	1/8"	1/8"	1/8"	**26.1%**	SL on lacing bars
			Outer CH	8.79	8.79	1/8"	1/8"	1/8"	**26.1%**	
L8L9	Bott. Chord	C 18 x 42.7	Inner CH	19.04	19.04					
		2PL 17½ x ⅜	Outer CH	19.04	19.04					
L8U9	Diagonal	2L 4x4x13/16	Inner CH	60.51	60.51	1/8"	1/8"	1/8"	**5.8%**	corr on batten PL & lace bars
		2PL 20 x 9/16	Outer CH	60.51	60.51	1/8"	1/8"	1/8"	**5.8%**	

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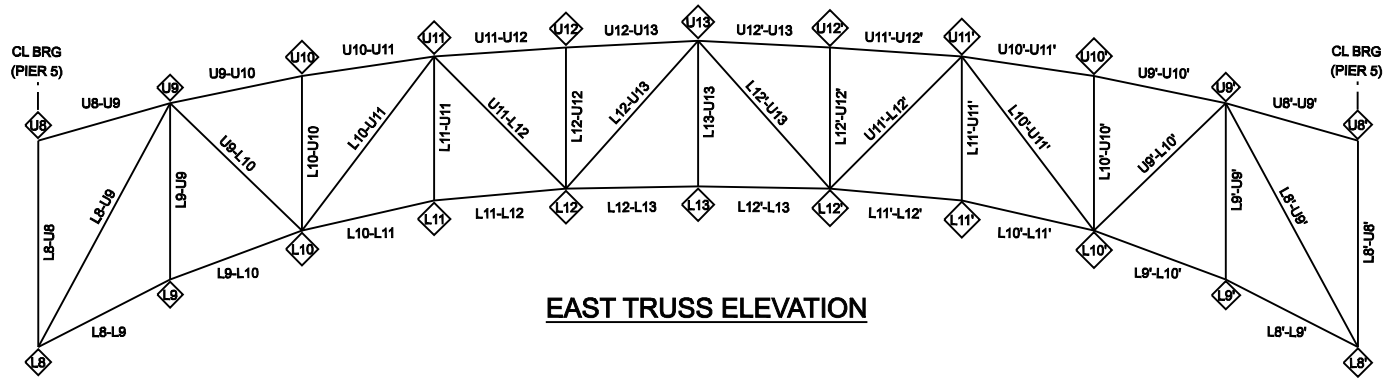
*Only controlling locations shown.
*Spans 4-5-6 are symmetrical about Panel Point 13. Truss members north of panel point 13 are numbered 0 to 13. Truss members south of panel point 13 are numbered from 12' to 0'.



EAST TRUSS ELEVATION

Span 5 - East Truss						Losses				Comments
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	
L8-U8	Vertical	C 12x30	Inner CH	8.79	7.99	1/4"			**9.0%**	One North lacing bar 90% SL 1/2"x1/2" at U8
			Outer CH	8.79	8.39	1/8"			**4.5%**	
L8-U9	Diagonal	2L 4x4x13/16	Inner CH	60.51	60.51					
		4PL 20 x 9/16	Outer CH	60.51	58.01		1/8"		**4.1%**	
L9-U9	Vertical	C 12x25	Inner CH	7.31	6.55	1/8"		1/8"	**10.4%**	Pack rust to 1/2" with SL on lacing bars
			Outer CH	7.31	5.24	1/8"	3/4" hole, 3 3/4"W 50% SL int, 1/16" FW ext	1/8"	**28.3%**	
L9-L10	Bott. Chord	C 18x42.7	Inner CH	19.04	18.05	1/8"		1/8"	**5.2%**	SL on lacing bars
		2PL 17½ x ⅜	Outer CH	19.04	18.05	1/8"		1/8"	**5.2%**	
U9-L10	Diagonal	2L 4x4x½	Inner CH	31.75	31.75					
		2PL 20 x ½	Outer CH	31.75	30.25	1/16"	1/16"		**4.7%**	
U11-L12	Diagonal	C 15x33.9	Inner CH	9.90	9.90					
			Outer CH	9.90	8.03		1/8"		**18.9%**	
L12-U12	Vertical	C 12x25	Inner CH	7.31	5.06		3/16"		**30.8%**	
			Outer CH	7.31	4.31		1/4"		**41.0%**	
L12-L13	Bott. Chord	C 18x42.7	Inner CH	21.23	20.24	1/8"		1/8"	**4.7%**	
		2PL 17½ x ½	Outer CH	21.23	20.24	1/8"		1/8"	**4.7%**	
L12-U13	Diagonal	C 15x33.9	Inner CH	9.90	9.78		1/8" SL 1" H		**1.3%**	
			Outer CH	9.90	9.90					
L13-U13	Vertical	C 12x25	Inner CH	7.31	6.56		1/16"		**10.3%**	
			Outer CH	7.31	6.56		1/16"		**10.3%**	
L12'-U12'	Vertical	C 12x25	Inner CH	7.31	5.81		1/8"		**20.5%**	
			Outer CH	7.31	5.81		1/8"		**20.5%**	
L12'-L11'	Bott. Chord	C 18x51.9	Inner CH	15.18	13.89	1/8"		3/16"	**8.4%**	SL on lacing bars
			Outer CH	15.18	11.80	3/16"x9"x2"			**22.2%**	
L12'-U11'	Diagonal	C 15x33.9	Inner CH	9.90	9.90					
			Outer CH	9.90	9.48	1/8"			**4.3%**	
L11'-U11'	Vertical	C 12x25	Inner CH	7.31	7.19		2" H 3/16"SL 2/3"W		**1.7%**	
			Outer CH	7.31	6.81		1/4" holes (2 count)		**6.8%**	
L11'-L10'	Bott. Chord	C 18x45.8	Inner CH	13.38	13.13	1/16"			**1.9%**	
			Outer CH	13.38	13.13	1/16"			**1.9%**	
U11'-L10'	Diagonal	2L 4x4x¾	Inner CH	32.00	32.00					
		4PL 20 x ½	Outer CH	32.00	31.50	1/8"			**1.6%**	
L10'-U10'	Vertical	(2) [ ] 12"x25#	Inner CH	7.31	5.06		3/16"		**30.8%**	
			Outer CH	7.31	6.93	1/8"			**5.2%**	

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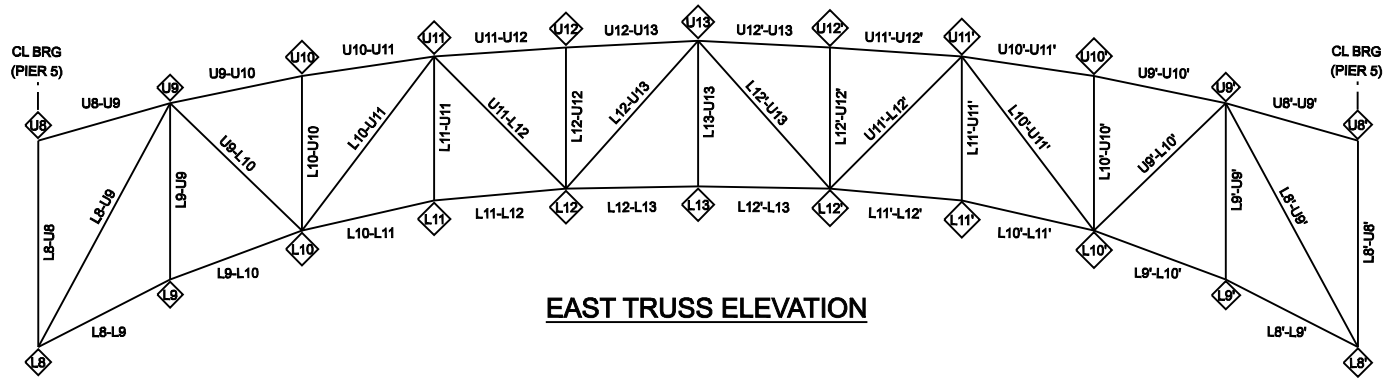

EAST TRUSS ELEVATION

Span 5 - East Truss (cont.)						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L10'-L9'	Bott. Chord	C 18x42.7	Inner CH	19.04	18.05	1/8"		1/8"	**5.2%**	Pack rust to ½"
		2PL 17½ x ⅜	Outer CH	19.04	18.05	1/8"		1/8"	**5.2%**	SL on lace bars
L10'-U9'	Diagonal	2L 4x4x½	Inner CH	31.75	31.75					
		2PL 20 x ½	Outer CH	31.75	29.25		1/8"		**7.9%**	
L9'-U9'	Vertical	C12x25	Inner CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	Pack rust to ½"
			Outer CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	SL on lace bars
L9'-L8'	Bott. Chord	C 18x42.7	Inner CH	19.04	18.55	1/16"		1/16"	**2.6%**	Pack rust to ½"
		2PL 17½ x ⅜	Outer CH	19.04	18.55	1/16"		1/16"	**2.6%**	SL on lace bars
U9'-L8'	Diagonal	2L 4x4x13/16	Inner CH	60.51	60.51					
		4PL 20 x 9/16	Outer CH	60.51	58.01		1/8"		**4.1%**	
L8'-U8'	Vertical	C 12x30	Inner CH	8.79	7.29		1/8"		**17.1%**	
			Outer CH	8.79	7.29		1/8"		**17.1%**	

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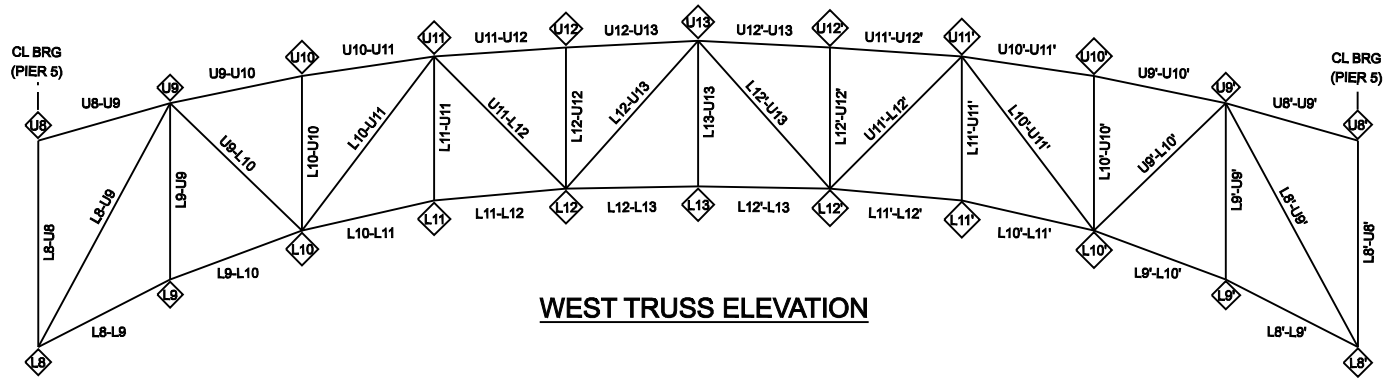

WEST TRUSS ELEVATION

Span 5 - West Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L8U8	Vertical	C 12x30	Inner CH	8.79	7.29		1/8"		**17.1%**	
			Outer CH	8.79	7.29		1/8"		**17.1%**	
L8L9	Bott. Chord	C 18x42.7	Inner CH	19.04	15.87	1/8"	1/8"	1/8"	**16.7%**	Pack rust and SL on lace bars
		2PL 17½ x ⅜	Outer CH	19.04	15.87	1/8"	1/8"	1/8"	**16.7%**	
L9U9	Vertical	C 12x25	Inner CH	7.31	3.06	1/8"	Holes 7" wide, 1/8-3/16 rem. else	1/8"	**58.2%**	
			Outer CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
L9L10	Bott. Chord	C 18x42.7	Inner CH	19.04	15.87	1/8"	1/8"	1/8"	**16.7%**	
		2PL 17½ x ⅜	Outer CH	19.04	15.87	1/8"	1/8"	1/8"	**16.7%**	
L10U10	Vertical	C 12x25	Inner CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
			Outer CH	7.31	6.26	1/8"	3/4" hole	1/8"	**14.4%**	
L10L11	Bott. Chord	C 18x45.8	Inner CH	13.38	11/8"	1/8"	1/8"	1/8"	**24.3%**	Pack rust and SL on lace bars
			Outer CH	13.38	11/8"	1/8"	1/8"	1/8"	**24.3%**	
L11U11	Vertical	C 12x25	Inner CH	7.31	5.81		1/8"		**20.5%**	
			Outer CH	7.31	5.81		1/8"		**20.5%**	
L11L12	Bott. Chord	C 18x51.9	Inner CH	15.18	11.90	1/8"	1/8"	1/8"	**21.6%**	
			Outer CH	15.18	11.90	1/8"	1/8"	1/8"	**21.6%**	
L12U12	Vertical	C 12x25	Inner CH	7.31	5.81		1/8"		**20.5%**	
			Outer CH	7.31	5.81		1/8"		**20.5%**	
L12L13	Bott. Chord	C 18x42.7	Inner CH	21.23	18.05	1/8"	1/8"	1/8"	**15.0%**	Pack rust and SL on lace bars
		2PL 17½ x ½	Outer CH	21.23	18.05	1/8"	1/8"	1/8"	**15.0%**	
L13U13	Vertical	C 12x25	Inner CH	7.31	5.81		1/8"		**20.5%**	SL on lacing bars
			Outer CH	7.31	5.81		1/8"		**20.5%**	
L13L12'	Bott. Chord	C 18x42.7	Inner CH	21.23	21.23					
		2PL 17½ x ½	Outer CH	21.23	19.98		1/8" x 6"H	1/8"	**5.9%**	
U13L12'	Diagonal	C 15x33.9	Inner CH	9.90	8.78		1/8" SL 9"W		**11.4%**	Pack rust and SL on lace bars
			Outer CH	9.90	9.90					
L12'U12'	Vertical	C 12x25	Inner CH	7.31	5.81		1/8"SL FW 4"H		**20.5%**	
			Outer CH	7.31	3.93	3/16" x 3"	3/16" SL x 3" H	3/16" x 3"	**46.3%**	
L12'L11'	Bott. Chord	C 18x51.9	Inner CH	15.18	11.90	1/8"	1/8"	1/8"	**21.6%**	
			Outer CH	15.18	11.90	1/8"	1/8"	1/8"	**21.6%**	
L12'U11'	Diagonal	C 15x33.9	Inner CH	9.90	9.65		1/8" SL 2"L		**2.5%**	
			Outer CH	9.90	9.90					

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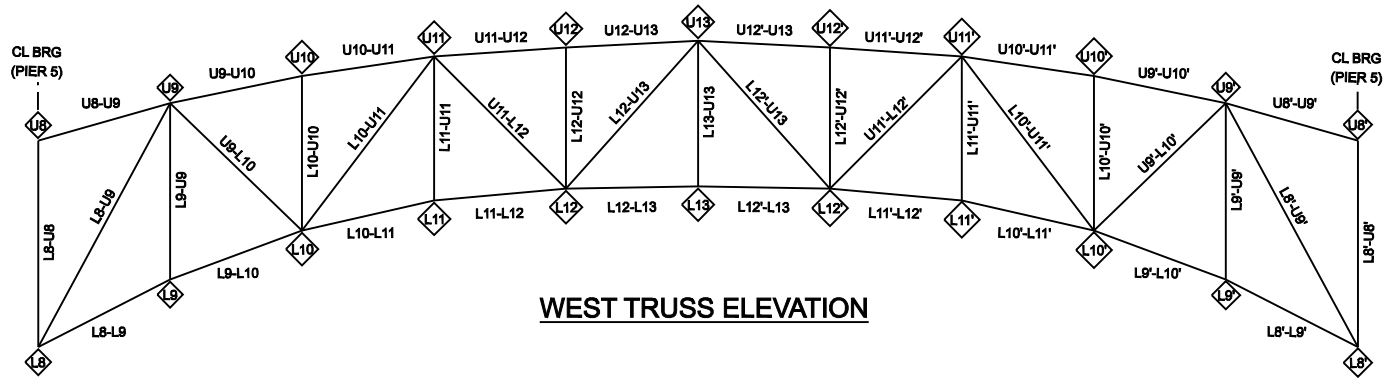


WEST TRUSS ELEVATION

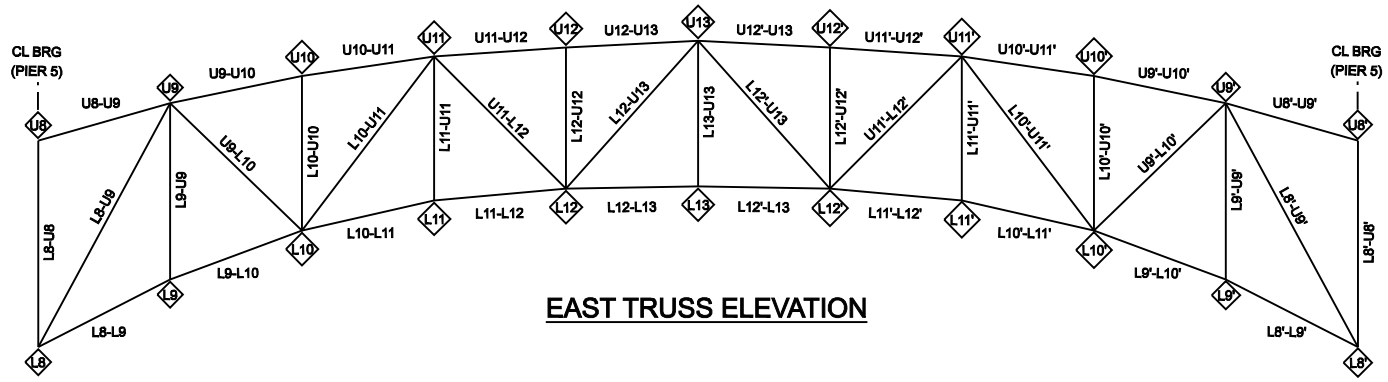
Span 5 - West Truss (cont.)						Losses				Comments
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	
L11'U11'	Vertical	C 12x25	Inner CH	7.31	5.81		1/8"SL FW 4"H		**20.5%**	
			Outer CH	7.31	5.81		1/8"SL FW 4"H		**20.5%**	
L11'L10'	Bott. Chord	C 18x45.8	Inner CH	13.38	10.31	1/8"	1/8"	1/8"	**24.3%**	Pack rust and SL on lace bars
			Outer CH	13.38	10.31	1/8"	1/8"	1/8"	**24.3%**	
U11'L10'	Diagonal	2L4x4x¾	Inner CH	32.00	27.25	1/8"	0.1875	1/8"	**14.8%**	corr holes and SL on lace bars
		4PL 20 x ½	Outer CH	32.00	28.50	1/8"	1/8"	1/8"	**10.9%**	
L10'U10'	Vertical	C 12x25	Inner CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
L10'L9'	Bott. Chord	C 18x42.7	Inner CH	19.04	15.87	1/8"	1/8"	1/8"	**16.7%**	SL on lacing bars
		2PL 17½ x ⅜	Outer CH	19.04	16.80	1/8"	1/4" SL 5"H	1/8"	**11.8%**	
L10'U9'	Diagonal	2L4x4x¾	Inner CH	31.75	28.25	1/8"	1/8"	1/8"	**11.0%**	SL on lacing bars
		4PL 20 x ½	Outer CH	31.75	28.25	1/8"	1/8"	1/8"	**11.0%**	
L9'U9'	Vertical	C 12x25	Inner CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	SL on lacing bars
			Outer CH	7.31	4.30	1/8"	0.1875	1/8"	**41.2%**	
L9'L8'	Bott. Chord	C 18x42.7	Inner CH	19.04	15.87	1/8"	1/8"	1/8"	**16.7%**	SL on lacing bars
		2PL 17½ x ⅜	Outer CH	19.04	15.87	1/8"	1/8"	1/8"	**16.7%**	
L8'U8'	Vertical	C 12x30	Inner CH	8.79	7.29		1/8"SL FW 4"H		**17.1%**	
			Outer CH	8.79	7.29		1/8"SL FW 4"H		**17.1%**	

*Assume dimensions are full width/height unless otherwise noted.

*Plates are split between outer/inner members.

*Only controlling locations shown.

*Spans 4-5-6 are symmetrical about Panel Point 13. Truss members north of panel point 13 are numbered 0 to 13. Truss members south of panel point 13 are numbered from 12' to 0'.



Span 6 - East Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L0'-U0'	Vertical	C 12x25	Outer CH	7.31	6.93	1/8"			**5.2%**	
			Inner CH	7.31	6.93	1/8"			**5.2%**	
L0'-L1'	Bott. Chord	C 18x42.7	Outer CH	12.48	11.11	1/8"	1/8"x7"H		**11.0%**	
			Inner CH	12.48	10.86	3/16"	1/8"x7"H		**13.0%**	
L0'-U1'	Diagonal	C 18x51.9	Outer CH	15.18	14.92	1/16"			**1.7%**	
			Inner CH	15.18	13.03	1/4"	1/16"		**14.2%**	
L1'-U1'	Vertical	C 12x25	Outer CH	7.31	5.03	1/8"	1/16"	1/8" rem	**31.2%**	
			Inner CH	7.31	5.41	1/8"	1/16"	1/4" rem	**25.9%**	
L1'-L2'	Bott. Chord	C 18x42.7	Outer CH	12.48	11.49	1/4"			**7.9%**	
			Inner CH	12.48	11.49	1/4"			**7.9%**	
U1'-L2'	Diagonal	C 15x33.9	Outer CH	9.90	8.03		1/8"		**18.9%**	
			Inner CH	9.90	8.03		1/8"		**18.9%**	
L2'-U2'	Vertical	C 12x25	Outer CH	7.31	6.74			3/16"	**7.8%**	
			Inner CH	7.31	7.31					
L2'-L3'	Bott. Chord	C 18x58	Outer CH	16.98	14.80	1/4"	1/16"		**12.8%**	SL on lacing bars
			Inner CH	16.98	15.93	1/4"			**6.2%**	
L2'-U3'	Diagonal	C 15x33.9	Outer CH	9.90	2.79	3/16"	0.375	1/4"	**71.8%**	
			Inner CH	9.90	5.51	3/16"	1/4"		**44.3%**	
L3'-U3'	Vertical	C 12x25	Outer CH	7.31	5.42	3/16"	1/16"	3/16"	**25.9%**	
			Inner CH	7.31	5.43	1/16"	1/8"	1/16"	**25.7%**	
L3'-U3'	Bott. Chord	C 18x58	Outer CH	16.98	16.23		1/8"x6"H		**4.4%**	
			Inner CH	16.98	13.94	3/16"	1/8"		**17.9%**	
U3'-L4'	Diagonal	C 15x33.9	Outer CH	9.90	9.53		1/8"x3"H		**3.8%**	
			Inner CH	9.90	9.10	1/8"	1/8"x3"H		**8.1%**	
L4'-U4'	Vertical	C 12x25	Outer CH	7.31	7.31					
			Inner CH	7.31	6.93			1/8"	**5.2%**	
L4'-L5'	Bott. Chord	C 18x42.7	Outer CH	12.48	10.99	1/4"	1/8"x4"H		**11.9%**	SL on lacing bars
			Inner CH	12.48	10.23		1/8"		**18.0%**	
L4'-U5'	Diagonal	C 15x40	Outer CH	11.70	11.70					
			Inner CH	11.70	7.13	1/4"	3/16"	1/4"	**39.1%**	
U4'-U5'	Top Chord	C 18x42.7	Outer CH	15.48	15.48					
		PL 16 x ⅜	Inner CH	15.48	13.23		1/8"		**14.5%**	
U5'-U6'	Top Chord	C 18x42.7	Outer CH	15.48	14.35		1/16"		**7.3%**	
		PL 16 x ⅜	Inner CH	15.48	15.48					

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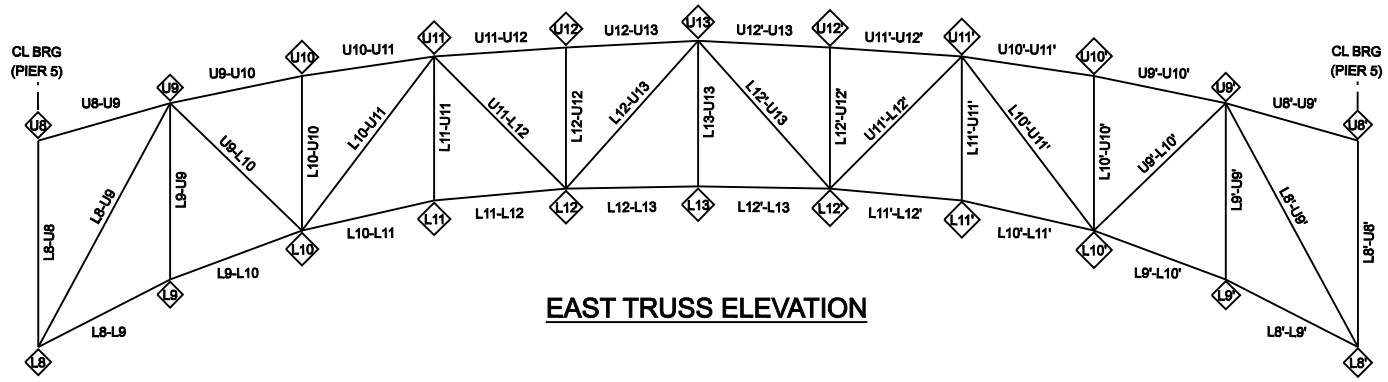
*Spans 4-5-6 are symmetrical about Panel Point 13. Truss members north of panel point 13 are numbered 0 to 13. Truss members south of panel point 13 are numbered from 12' to 0'.



EAST TRUSS ELEVATION

Span 6 - East Truss (cont.)						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L5'-U5'	Vertical	C 12x25	Outer CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
			Inner CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
L5'-L6'	Bott. Chord	C 18x42.7	Outer CH	12.48	11.61	1/8"	1/8"x3"H		**7.0%**	PR to ½" SL on lacing bar
			Inner CH	12.48	10.23		1/8"		**18.0%**	
U5'-L6'	Diagonal	C 18x58	Outer CH	16.98	15.06	1/8"	1/16"	1/16"	**11.3%**	
			Inner CH	16.98	15.85		1/16"		**6.6%**	
L6'-U6'	Vertical	C 12x25	Outer CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	Perf. on south batten PL
			Inner CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	
L6'-L7'	Bott. Chord	C 18x42.7	Outer CH	19.04	18.36	1/8"	1/16"x3"		**3.6%**	PR to ½" SL on lacing bar
		2PL 17½ x ⅜	Inner CH	19.04	18.17		1/8"x7"		**4.6%**	
L7'-U7'	Vertical	C 12x25	Outer CH	7.31	6.94		1/32"		**5.1%**	
			Inner CH	7.31	6.56		1/16"		**10.3%**	
L8'-U8'	Vertical	C 12x30	Outer CH	8.79	6.89	1/8"	1/8"		**21.6%**	
			Inner CH	8.79	6.89	1/8"	1/8"		**21.6%**	
L8'-L9'	Bott. Chord	C 18x42.7	Outer CH	19.04	16.61	1/16"	1/8"		**12.8%**	
		2PL 17½ x ⅜	Inner CH	19.04	18.79		1/16"x4"L		**1.3%**	
L8'-U9'	Diagonal	2L 4x4x13/16	Outer CH	60.51	57.76	1/16"	1/8"		**4.5%**	
		4PL20x9/16"	Inner CH	60.51	59.51	1/16"	1/8"x6"		**1.7%**	

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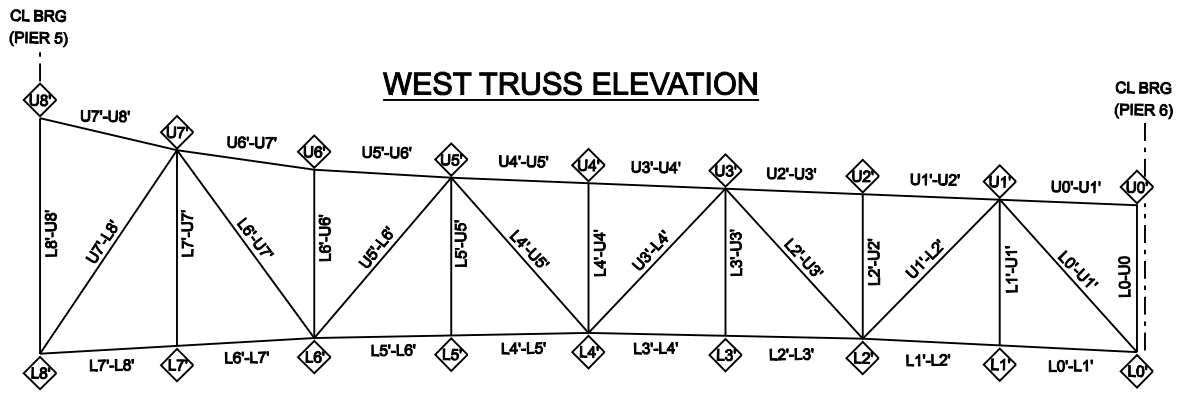
*Only controlling locations shown.
*Spans 4-5-6 are symmetrical about Panel Point 13. Truss members north of panel point 13 are numbered 0 to 13. Truss members south of panel point 13 are numbered from 12' to 0'.



Span 6 - West Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L0'-U0'	Vertical	C 12x25	Inner CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
			Outer CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
L0'-L1'	Bott. Chord	C 18x42.7	Inner CH	12.48	8.99	1/8"	1/8"	3/16"	**27.9%**	corrosion holes in lacing bars
			Outer CH	12.48	8.99	1/8"	1/8"	3/16"	**27.9%**	
L1'-U1'	Vertical	C 12x25	Inner CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
			Outer CH	7.31	5.05	1/8"	1/8"	1/8"	**31.0%**	
L1'-L2'	Bott. Chord	C 18x42.7	Inner CH	12.48	8.99	1/8"	1/8"	3/16"	**27.9%**	corrosion holes in lacing bars
			Outer CH	12.48	8.99	1/8"	1/8"	3/16"	**27.9%**	
U1'-L2'	Diagonal	C 15x33.9	Inner CH	9.90	8.20	1/4"		1/4"	**17.2%**	
			Outer CH	9.90	8.20	1/4"		1/4"	**17.2%**	
L2'-L3'	Bott. Chord	C 18x58	Inner CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	corr holes & SL on lacing bars
			Outer CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	
L2'-U3'	Diagonal	C 15x33.9	Inner CH	9.90	8.20	1/4"		1/4"	**17.2%**	
			Outer CH	9.90	8.20	1/4"		1/4"	**17.2%**	
L3'-U3'	Vertical	C 12x25	Inner CH	7.31	5.77	1/8"	Hole 2" L x 1" H	1/8"	**21.0%**	corr holes in batten PL SL on lace bars
			Outer CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	
L3'-L4'	Bott. Chord	C 18x58	Inner CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	SL & corr holes on batten PL and lace bars
			Outer CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	
U3'-L4'	Diagonal	C 15x33.9	Inner CH	9.90	4.45	1/4"	1/4"	1/4"	**55.1%**	SL on lacing bars
			Outer CH	9.90	4.45	1/4"	1/4"	1/4"	**55.1%**	
L4'-U4'	Vertical	C 12x25	Inner CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	SL on lacing bars
			Outer CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	
L4'-L5'	Bott. Chord	C 18x42.7	Inner CH	12.48	10.36	1/8"	1/16"	1/8"	**16.9%**	SL on lacing bars
			Outer CH	12.48	10.36	1/8"	1/16"	1/8"	**16.9%**	
L4'-U5'	Diagonal	C 15x40	Inner CH	11.70	6.19	1/4"	1/4"	1/4"	**47.1%**	SL on lacing bars
			Outer CH	11.70	6.19	1/4"	1/4"	1/4"	**47.1%**	
L5'-U5'	Vertical	C 12x25	Inner CH	7.31	6.93	1/8"	1/16"	1/8"	**5.2%**	SL on lacing bars
			Outer CH	7.31	6.93	1/8"	1/16"	1/8"	**5.2%**	
L5'-L6'	Bott. Chord	C 18x42.7	Inner CH	12.48	9.24	1/8"	1/8"	1/8"	**25.9%**	SL on lacing bars
			Outer CH	12.48	9.24	1/8"	1/8"	1/8"	**25.9%**	
U5'-L6'	Diagonal	C 18x58	Inner CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	SL on lacing bars
			Outer CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	
L6'-U6'	Vertical	C 12x25	Inner CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	SL on lacing bars and batten plates
			Outer CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	

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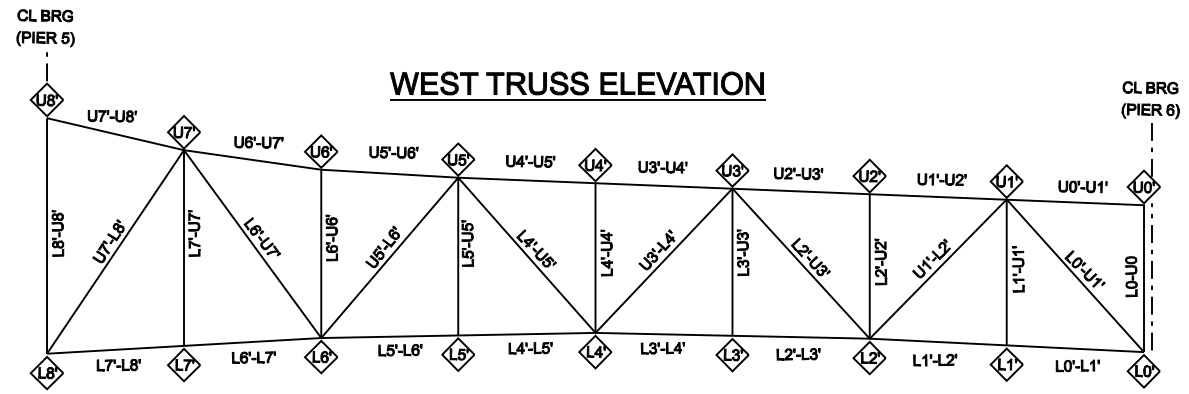
*Spans 4-5-6 are symmetrical about Panel Point 13. Truss members north of panel point 13 are numbered 0 to 13. Truss members south of panel point 13 are numbered from 12' to 0'.



Span 6 - West Truss (cont.)						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L6'-L7'	Bott. Chord	C 18x42.7	Inner CH	19.04	16.96	1/8"	1/16"	1/8"	**10.9%**	SL on lacing bars
		2PL 17½ x ⅜	Outer CH	19.04	16.96	1/8"	1/16"	1/8"	**10.9%**	
L6'-U7'	Diagonal	C 18x58	Inner CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	SL on lacing bars
			Outer CH	16.98	14.80	1/8"	1/16"	1/8"	**12.8%**	
L7'-U7'	Vertical	C 12x25	Inner CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	SL on lacing bars
			Outer CH	7.31	5.80	1/8"	1/16"	1/8"	**20.7%**	
L7'-L8'	Bott. Chord	C 18x42.7	Inner CH	19.04	16.96	1/8"	1/16"	1/8"	**10.9%**	SL and corr holes on batten PL and lace bars
		2PL 17½ x ⅜	Outer CH	19.04	16.96	1/8"	1/16"	1/8"	**10.9%**	
U7'-L8'	Diagonal	C 18x45.8	Inner CH	22.13	20.03	1/8"	1/16"	1/8"	**9.5%**	SL on lacing bars
		2PL 17½ x ½	Outer CH	22.13	20.03	1/8"	1/16"	1/8"	**9.5%**	
L8'-U8'	Vertical	C 12x30	Inner CH	8.79	7.24	1/8"	1/16"	1/8"	**17.6%**	SL on lacing bars
			Outer CH	8.79	7.24	1/8"	1/16"	1/8"	**17.6%**	
L8'-U9'	Diagonal	2L 4x4x13/16	Inner CH	60.51	58.26	1/8"	1/16"	1/8"	**3.7%**	SL on lacing bars
		4PL 20x9/16	Outer CH	60.51	58.26	1/8"	1/16"	1/8"	**3.7%**	

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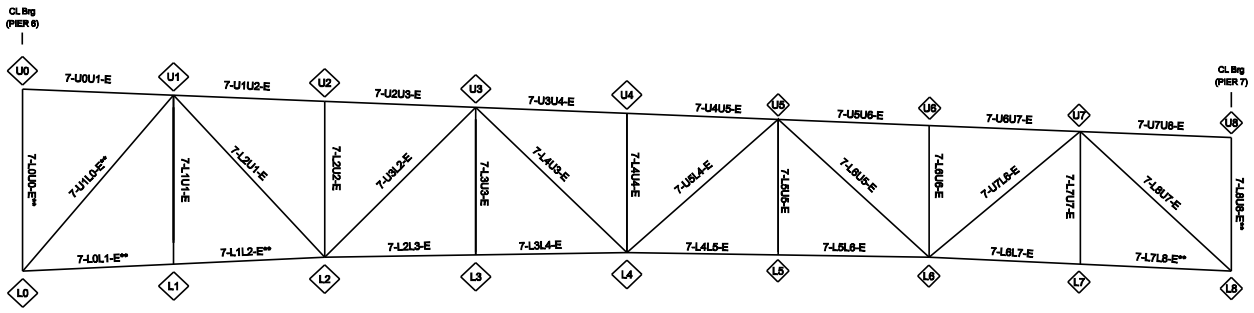

EAST TRUSS ELEVATION

Span 7 - East Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L0U0	Vertical	C 12 x 25	Outer CH	7.32	6.71			0.20"	**8.3%**	Losses @ batten PL
			Inner CH	7.32	6.91		35% for 3"		**5.6%**	
L0L1	Bott. Chord	C 15 x 35	Outer CH	10.23	3.42		9.0" Hole w/ 75% for 6"	50%	**66.6%**	Losses @ batten PL
			Inner CH	10.23	6.33	50%	2" Hole w/ 50% for 5"	40%	**38.1%**	
L0U1	Diagonal	C 15 x 40	Outer CH	17.14	15.22	0.20"	0.25" x 4"	1/16"	**11.2%**	
		2PL 14½ x ⅜	Inner CH	17.14	16.70	1/8"			**2.6%**	
L1L2	Bott. Chord	C 15 x 35	Outer CH	10.23	6.75		55%		**34.0%**	
			Inner CH	10.23	6.14		5" Hole w/ 40% for 2" & 65% for 6"		**40.0%**	
L2U1	Diagonal	C 15 x 40	Outer CH	11.70	11.26	1/16"		1/16"	**3.8%**	
			Outer CH	11.70	11.70					
L2L3	Bott. Chord	C 15 x 50	Outer CH	21.89	20.02		1/8"		**8.6%**	
		2PL 14½ x ½	Inner CH	21.89	20.02		1/8"		**8.6%**	
L4L5	Bott. Chord	C 15 x 50	Outer CH	21.89	20.69	1/16"		40%	**5.5%**	
		2PL 14½ x ½	Inner CH	21.89	20.92			40%	**4.4%**	
L4U5	Diagonal	C 15 x 55	Outer CH	16.11	15.63	1/8"			**3.0%**	
			Inner CH	16.11	16.11					
L5L6	Bott. Chord	C 15 x 50	Outer CH	21.89	21.19	1/8"		1/16"	**3.2%**	
		2PL 14½ x ½	Inner CH	21.89	20.44	1/16"	1/8" x 2"	40%	**6.6%**	
L6L7	Bott. Chord	C 15 x 35	Outer CH	10.23	9.80	1/16"		1/16"	**4.2%**	
			Inner CH	10.23	9.80	1/8"			**4.2%**	
L7L8	Bott. Chord	C 15 x 35	Outer CH	10.23	7.06		50%		**31.0%**	Hvy. loss in multiple locations
			Inner CH	10.23	8.71		90% for 1" & 55% for 4"	1/16"	**14.9%**	
L8U7	Diagonal	C 15 x 40	Outer CH	17.14	16.01	0.20"	0.20" x 1"	1/16"	**6.6%**	
		2PL 14½ x ⅜	Inner CH	17.14	16.92	1/16"			**1.3%**	
L8U8	Vertical	C 12 x 25	Outer CH	7.32	5.00		50%		**31.7%**	
			Inner CH	7.32	5.00		50%		**31.7%**	

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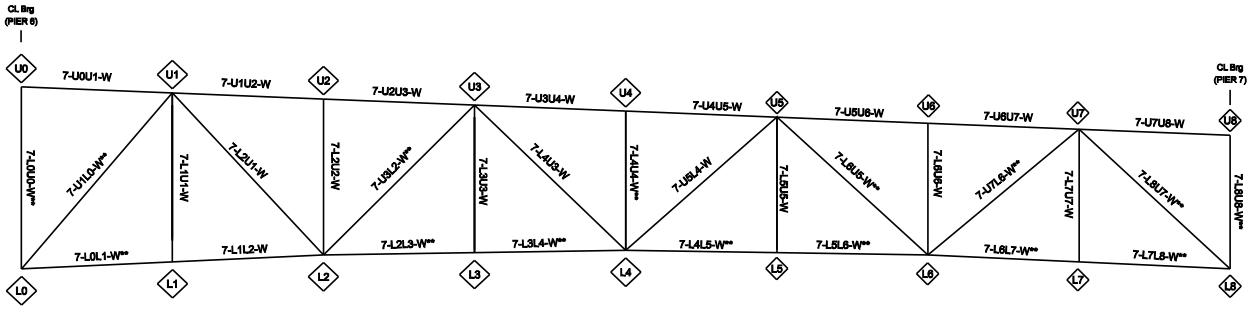

WEST TRUSS ELEVATION

Span 7 - West Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L0U0	Vertical	C 12 x 25	Outer CH	7.32	6.71	40%			**8.4%**	Hvy pack rust - member and PL
			Inner CH	7.32	5.82		1/8"		**20.5%**	
L0L1	Bott. Chord	C 15 x 35	Outer CH	10.23	5.44	75%	2" Hole w/20% for 6"	80%	**46.9%**	Multiple locations of loss and holes
			Inner CH	10.23	5.15	0.25"	4" Hole w/40% for 11"	0.20"	**49.7%**	
L0U1	Diagonal	C 15 x 40	Outer CH	17.14	16.43	0.20"			**4.1%**	
		2PL @ 14½ x ⅜	Inner CH	17.14	16.26	1/8"		1/8"	**5.1%**	
U0U1	Top Chord	C 15 x 50	Outer CH	18.02	15.61		1" Hole	70%	**13.4%**	
		1 PL @ 18 x ⅜	Inner CH	18.02	18.02					
L1L2	Bott. Chord	C 15 x 35	Outer CH	10.23	8.45			80%	**17.4%**	
			Inner CH	10.23	8.98		1/16" for 8" & 1/8" for 6"		**12.2%**	
L2U1	Diagonal	C 15 x 40	Outer CH	11.70	10.98	1/8"	3/16" x 1.5"		**6.2%**	
			Inner CH	11.70	11.70					
L2L3	Bott. Chord	C 15 x 50	Outer CH	21.89	21.24		1/8" x 1.5"	1/8"	**3.0%**	
		2 PL 14½ x ½	Inner CH	21.89	21.66	1/16"			**1.1%**	
L2U3	Diagonal	C 15 x 33.9	Outer CH	9.90	9.35		1/8" x 1"	1/8"	**5.6%**	
			Inner CH	9.90	7.66		3.5" Hole w/40% for 6"		**22.6%**	
L3L4	Bott. Chord	C 15 x 50	Outer CH	21.89	20.95		1/16"		**4.3%**	
		2 PL 14½ x ½	Inner CH	21.89	21.66			1/16"	**1.1%**	
L4U3	Diagonal	C 15 x 55	Outer CH	16.11	15.62		1/8" x 2"	1/16"	**3.0%**	
			Inner CH	16.11	16.11					
L4U4	Vertical	C 12 x 30	Outer CH	8.79	8.59			1/16"	**2.3%**	
			Inner CH	8.79	8.42		1/16" x 6"		**4.3%**	
L4U5	Diagonal	C 15 x 55	Outer CH	16.11	15.63	1/8"			**3.0%**	
			Inner CH	16.11	15.23		0.20" x 2"	1/8"	**5.4%**	
L4L5	Bott. Chord	C 15 x 50	Outer CH	21.89	20.68	0.20"		1/8"	**5.5%**	
		2 PL 14½ x ½	Inner CH	21.89	20.22	1/8"		50%	**7.7%**	
L5L6	Bott. Chord	C 15 x 50	Outer CH	21.89	20.49	1/16"	0.20" x 1"	40%	**6.4%**	
		2 PL 14½ x ½	Inner CH	21.89	21.89					
L6U5	Diagonal	C 15 x 33.9	Outer CH	9.90	9.50		0.20" x 2"		**4.0%**	
			Inner CH	9.90	8.03		1/8"		**18.9%**	
L6L7	Bott. Chord	C 15 x 35	Outer CH	10.23	7.01	0.20"	3" Hole w/ 50% for 4"	1/8"	**31.5%**	
			Inner CH	10.23	8.36		1/8"		**18.3%**	
L6U7	Diagonal	C 15 x 40	Outer CH	11.70	10.48	1/16"	0.20" x 1.5"	0.20"	**10.5%**	
			Inner CH	11.70	9.83		1/8"		**16.0%**	
L7L8	Bott. Chord	C 15 x 35	Outer CH	10.23	6.78	0.20"	2" Hole w/ .25" for 3" & 1/8" for 3" & .4" for 2"		**33.8%**	
			Inner CH	10.23	7.43	1/16"	3" Hole w/ 50% for 3"	0.20"	**27.3%**	
L8U8	Vertical	C 12 x 25	Outer CH	7.23	6.62	0.20"			**8.4%**	
			Inner CH	7.23	5.73		1/8"		**20.7%**	

*Assume dimensions are full width/height unless otherwise noted.
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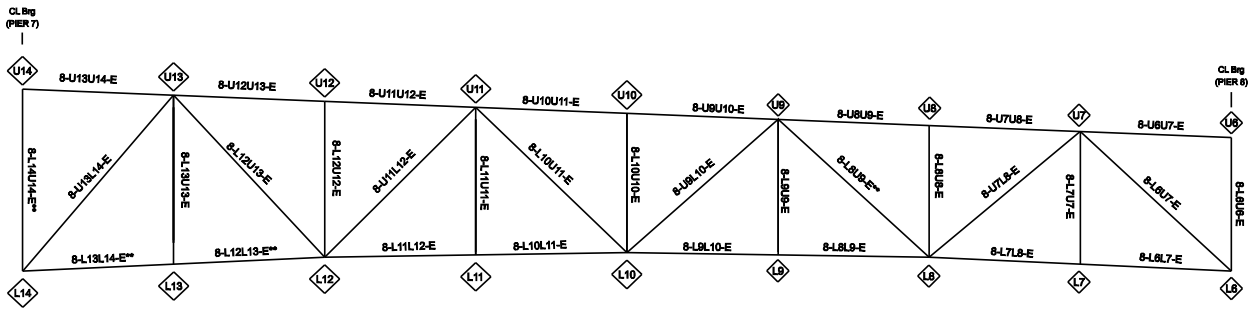
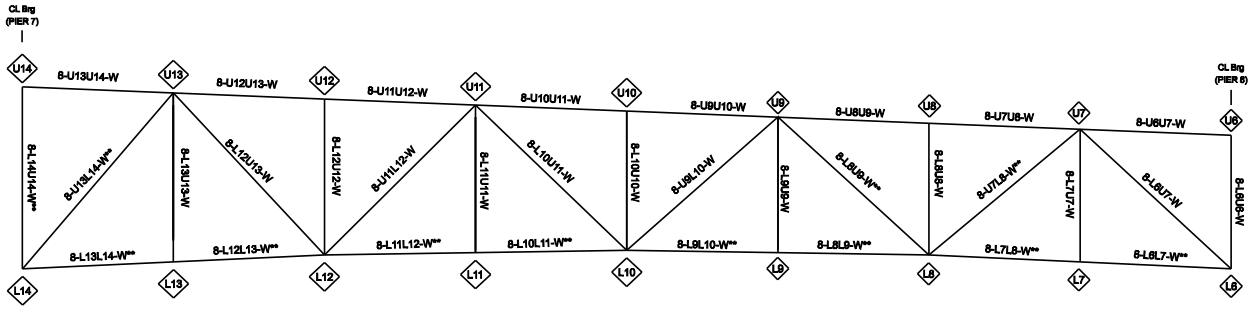
*Only controlling locations shown.



EAST TRUSS ELEVATION

Span 8 - East Truss						Losses				Comments
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	
L14U14	Vertical	C 12 x 25	Outer CH	7.32	6.72		0.20" for 3"		**8.2%**	Losses in multiple locations
			Inner CH	7.32	4.42		5" Hole w/ 50% for 5"		**39.6%**	
L14U13	Diagonal	C 12 x 40	Outer CH	16.04	15.61	1/8"			**2.7%**	
		2 PL @ 11½ x ¾	Inner CH	16.04	15.70	1/16"	1/8" x 1"		**2.1%**	
L14L13	Bott. Chord	C 12 x 30	Outer CH	8.79	6.44	1/8"	50% x 3"	75%	**26.7%**	
			Inner CH	8.79	6.50	0.20"	50% x 1.5"	80%	**26.0%**	
L13L12	Bott. Chord	C 12 x 30	Outer CH	8.79	8.04		1/16"		**8.5%**	
			Inner CH	8.79	8.39	1/16"		1/16"	**4.5%**	
L12U13	Diagonal	C 12 x 30	Outer CH	8.79	8.39	1/8"			**4.5%**	
			Inner CH	8.79	8.79					
L12L11	Bott. Chord	C 12 x 40	Outer CH	17.48	17.27	1/16"			**1.2%**	
		2PL 11½ x ½	Inner CH	17.48	17.27	1/16"			**1.2%**	
L10U11	Diagonal	C 12 x 25	Outer CH	7.32	7.32					
			Inner CH	7.32	7.13	1/16"			**2.6%**	
L11L10	Bott. Chord	C 12 x 40	Outer CH	17.48	17.27	1/16"			**1.2%**	
		2PL 11½ x ½	Inner CH	17.48	17.48					
L10L9	Bott. Chord	C 12 x 35	Outer CH	14.57	13.96	1/8"		1/16"	**4.2%**	
		2 PL @ 11½ x ¾	Inner CH	14.57	14.16	1/16"		1/16"	**2.8%**	
L10U9	Diagonal	C 12 x 25	Outer CH	7.32	7.13			1/16"	**2.6%**	
			Inner CH	7.32	7.32					
L9L8	Bott. Chord	C 12 x 35	Outer CH	14.57	13.95	1/8"		1/16"	**4.2%**	
		2 PL @ 11½ x ¾	Inner CH	14.57	14.36			1/16"	**1.4%**	
L8U9	Diagonal	C 12 x 30	Outer CH	8.79	8.39	1/16"		1/16"	**4.5%**	
			Inner CH	8.79	8.79					
L8L7	Bott. Chord	C 12 x 35	Outer CH	10.26	9.85	1/8"			**4.0%**	
			Inner CH	10.26	10.05	1/16"			**2.0%**	
L8U7	Diagonal	C 12 x 35	Outer CH	14.57	14.36			1/16"	**1.4%**	
		2 PL @ 11½ x ¾	Inner CH	14.57	14.57					
L7L6	Bott. Chord	C 12 x 35	Outer CH	10.26	10.05	1/16"			**2.0%**	
			Inner CH	10.26	10.05	1/16"			**2.0%**	
L6U7	Diagonal	C 15 x 45	Outer CH	20.42	20.42					
		2PL 14½ x ½	Inner CH	20.42	20.19	1/16"			**1.1%**	

*Assume dimensions are full width/height unless otherwise noted.
*Plates are split between outer/inner members.
*Only controlling locations shown.



WEST TRUSS ELEVATION

Span 8 - West Truss						Losses				
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	**Comments**
L14U14	Vertical	C 12 x 25	Outer CH	7.32	6.16		2" Hole w/ 50% for 2"		**15.9%**	Losses in multiple locations
			Inner CH	7.32	5.95		2" Hole w/ .2 for 3"		**18.8%**	
L14U13	Diagonal	C 12 x 40	Outer CH	16.04	14.54		1/8"		**9.4%**	Hvy pack rust - member and PL
			Inner CH	16.04	15.15	1/8"	1/8" x 2"	1/16"	**5.6%**	
		2PL 11½ x ⅜	Inner CH	16.04	14.54		1/8"		**9.4%**	
U14U13	Top Chord	C 12 x 25	Outer CH	10.70	10.70					
		1PL 18 x ⅜	Inner CH	10.70	10.50			1/16"	**1.8%**	
L14L13	Bott. Chord	C 12 x 30	Outer CH	8.79	7.45	1/16"	1/16"	1/8"	**15.3%**	
			Inner CH	8.79	6.64	1/8"	1.5" Hole w/ 50% for 2"	0.15"	**24.4%**	
L13L12	Bott. Chord	C 12 x 30	Outer CH	8.79	8.21		1/8" x 1.5"	1/8"	**6.6%**	
			Inner CH	8.79	8.39			1/8"	**4.5%**	
L12L11	Bott. Chord	C 12 x 40	Outer CH	17.48	17.05	1/8"			**2.4%**	
		2PL 11½ x ½	Inner CH	17.48	16.84	1/16"		1/8"	**3.7%**	
L10L11	Bott. Chord	C 12 x 40	Outer CH	17.48	17.05			1/8"	**2.4%**	
		2PL 11½ x ½	Inner CH	17.48	17.05			1/8"	**2.4%**	
L10U9	Diagonal	C 12 x 25	Outer CH	7.32	7.13	1/16"			**2.6%**	
			Inner CH	7.32	7.32					
L10L9	Bott. Chord	C 12 x 35	Outer CH	14.57	13.50	1/8"		0.20"	**7.3%**	
		2PL 11½ x ⅜	Inner CH	14.57	13.33	1/16"	5%	0.20"	**8.5%**	
L9L8	Bott. Chord	C 12 x 35	Outer CH	14.57	14.16	1/16"		1/16"	**2.8%**	
		2PL 11½ x ⅜	Inner CH	14.57	14.16	1/16"		1/16"	**2.8%**	
L8U7	Diagonal	C 12 x 35	Outer CH	14.57	14.03	1/8"	1/8" x 1"		**3.7%**	
		2PL 11½ x ⅜	Inner CH	14.57	14.57					
L8L7	Bott. Chord	C 12 x 35	Outer CH	10.26	9.64	1/8"		1/16"	**6.0%**	
			Inner CH	10.26	9.64	1/16"		1/8"	**6.0%**	
L7L6	Bott. Chord	C 12 x 35	Outer CH	10.26	9.85	1/8"			**4.0%**	
			Inner CH	10.26	9.74	1/16"	1/16" x 5"		**5.1%**	
L6U7	Diagonal	C 15 x 45	Outer CH	20.42	19.94		1/8" x 2"	1/16"	**2.3%**	
		2PL 14½ x ½	Inner CH	20.42	19.97	1/8"			**2.2%**	

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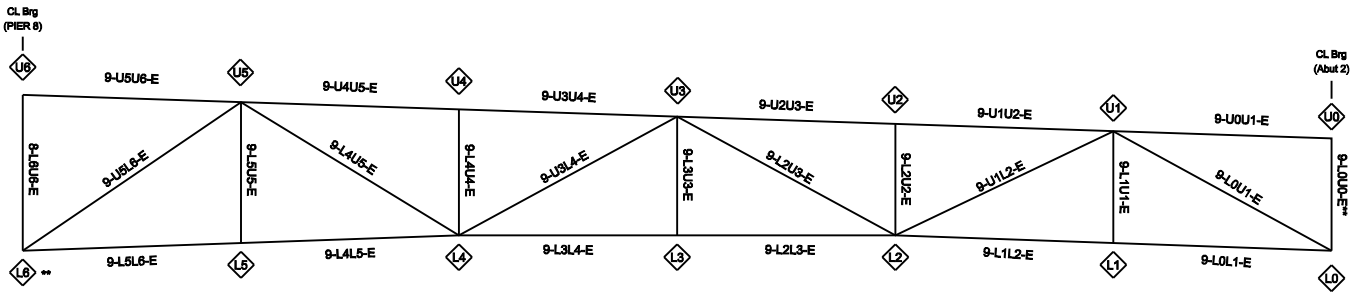
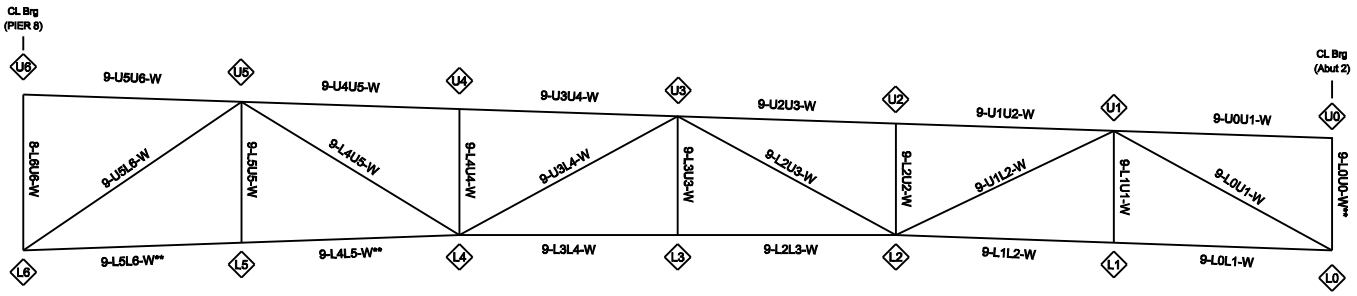
*Plates are split between outer/inner members.
*Only controlling locations shown.



EAST TRUSS ELEVATION

Span 9 - East Truss						Losses				Comments
Member ID	**Member Type**		**Inner/ Outer**	**As-Built Area (in²)**	**Inspected Area (in²)**	**Top/South Flange**	**Web**	**Bott/North Flange**	**Total Loss %**	
L6L5	Bott. Chord	C 12 x 30	Outer CH	13.10	12.51	1/16"		1/8"	**4.5%**	
		2PL 11½ x ⅜	Inner CH	13.10	12.52	1/16"	1/16" x 3"	1/16"	**4.5%**	
L5L4	Bott. Chord	C 12 x 30	Outer CH	13.10	12.70	1/8"			**3.0%**	
		2PL 11½ x ⅜	Outer CH	13.10	12.70	1/8"			**3.0%**	
L4U5	Diagonal	C 12 x 40	Outer CH	11.73	11.45		1/16" x 1"	1/16"	**2.4%**	
			Inner CH	11.73	11.73					
L4U3	Diagonal	C 12 x 35	Outer CH	10.26	10.05	1/16"			**2.0%**	
			Inner CH	10.26	10.05	1/16"			**2.0%**	
L4L3	Bott. Chord	C 12 x 35	Outer CH	10.26	10.05	1/16"			**2.0%**	
			Inner CH	10.26	10.05	1/16"			**2.0%**	
L3L2	Bott. Chord	C 12 x 35	Outer CH	10.26	9.85	1/16"		1/16"	**4.0%**	
			Inner CH	10.26	10.05			1/16"	**2.0%**	
L1L0	Bott. Chord	C 12 x 35	Outer CH	10.26	10.05	1/16"			**2.0%**	
			Inner CH	10.26	10.26					
L0U0	Vertical	C 12 x 25	Outer CH	7.32	5.50		2.5" Hole w/ 40% for 5.5"		**24.8%**	
			Inner CH	7.32	4.42		1.5" Hole & 3" Hole w/ 50% for 6"		**39.7%**	

*Assume dimensions are full width/height unless otherwise noted.
*Plates are split between outer/inner members.
*Only controlling locations shown.



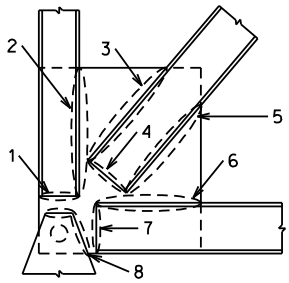
WEST TRUSS ELEVATION

Span 9 - West Truss						Losses				Comments
Member ID	Member Type		Inner/ Outer	As-Built Area (in²)	Inspected Area (in²)	Top/South Flange	Web	Bott/North Flange	Total Loss %	
L6L5	Bott. Chord	C 12 x 30	Outer CH	13.10	12.71	1/8"			**3.0%**	Typical in multiple locations
		2PL 11½ x ⅜	Inner CH	13.10	12.32	1/16"		3/16"	**6.0%**	
L6U5	Diagonal	C 12 x 40	Outer CH	18.92	18.70	1/16"			**1.1%**	
		2PL 11½ x ⅝	Inner CH	18.92	18.70	1/16"			**1.1%**	
L5L4	Bott. Chord	C 12 x 30	Outer CH	13.10	12.70	1/8"			**3.0%**	
		2PL 11½ x ⅜	Inner CH	13.10	12.31	1/8"		1/8"	**6.0%**	
L4L3	Bott. Chord	C 12 x 35	Outer CH	10.26	9.87		1/8" x 1.5"	1/16"	**3.8%**	
			Inner CH	10.26	10.05			1/16"	**2.0%**	
L4U3	Diagonal	C 12 x 35	Outer CH	10.26	10.05	1/16"			**2.0%**	
			Inner CH	10.26	9.40	1/16"		0.20"	**8.4%**	
L3L2	Bott. Chord	C 12 x 35	Outer CH	10.26	9.77	0.15"			**4.8%**	
			Inner CH	10.26	10.05	1/16"			**2.0%**	
L1L2	Bott. Chord	C 12 x 35	Outer CH	10.26	10.26					
			Inner CH	10.26	10.01		1/8" x 2"		**2.4%**	
L1L0	Bott. Chord	C 12 x 35	Outer CH	10.26	10.26					
			Inner CH	10.26	9.64	1/16"		1/8"	**6.0%**	
L0U0	Vertical	C 12 x 25	Outer CH	7.32	3.74		5.5" Hole & 2.75" Hole w/ 50% for 2"		**48.9%**	
			Inner CH	7.32	5.37		2" Hole w/ 40% for 5" and 30% for 3.5"		**26.7%**	

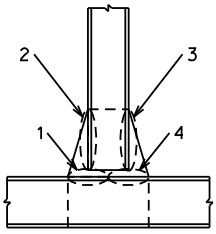
*Assume dimensions are full width/height unless otherwise noted.
*Plates are split between outer/inner members.
*Only controlling locations shown.

APPENDIX C – 2014 CONDITION TABLES

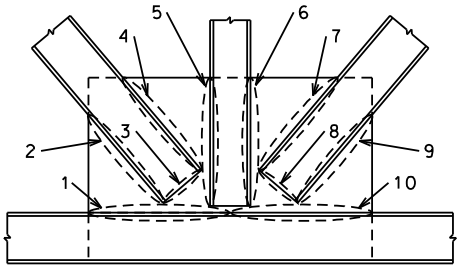
GUSSET PLATES



"Corner" Type



"Vertical" Type



"Multi" Type

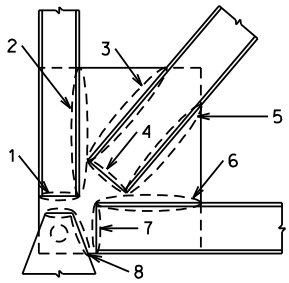
Span 1 - West Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL0	5/8"	5/8"	Outer						Misc.					1/8" for last 6"
(Corner)			Inner											
PL2	3/4"		Outer	0.20"						1/16"			0.20"	
(Multi)			Inner											
PL3	3/8"		Outer			Misc	0.10"							0.10" - bott. 8"
(Vertical)			Inner											
PL4	3/4"		Outer	0.20"			1/4"						3/8"	
(Multi)			Inner										Misc.	1/16" x 12" starting 12" from edge
PL5	3/8"		Outer	Misc.			Misc.							⅛" x 18"
(Vertical)			Inner											
PL6	5/8"	3/4"	Outer						Misc.					¼" x 5" @ edge
Corner			Inner											

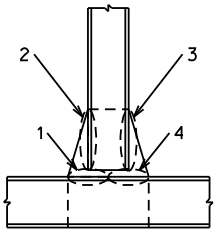
Span 1 - East Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL1	3/8"		Outer	1/8"			1/8"							
(Vertical)			Inner											
PL2	3/4"		Outer	1/16" x 22"			1/16"			1/16"			1/8" x 18"	#1,10 - measured from edge
(Multi)			Inner											
PL3	3/8"		Outer	1/16"			1/16"							
(Vertical)			Inner											
PL4	3/4"		Outer	1/8"			1/16"			1/8"				
(Multi)			Inner										1/8" x 12"	#10 - measured from edge
PL5	3/8"		Outer	1/16"			1/16"							
(Vertical)			Inner											
PL6	5/8"	3/4"	Outer		1/16"				1/16" x 18"					#6 - measured from edge
(Corner)			Inner		1/16" x 6"									#2 - measured from edge of member
PU6	3/8"		Outer			Misc								3/16" w/ 5" of perferation
(Vertical)			Inner											

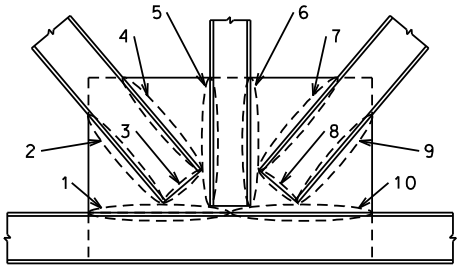
*All losses reported looking directly at each gusset plate.



"Corner" Type



"Vertical" Type



"Multi" Type

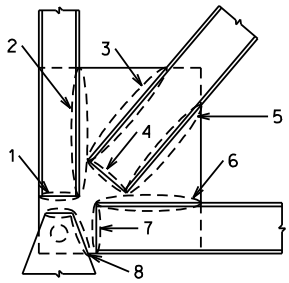
Span 2 - West Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL0	5/8"	5/8"	Outer		1/8" x 9"	1/16 x 12"			Misc					#2- from end of memb, #3- from PL edge #6 - 0.20" for 18" then 1/16" from memb end
(Corner)			Inner			Misc.			3/16"					⅛" x 9" - 24" from PL edge 1/16" x 12" @ edge of PL
PL1	3/8"		Outer	1/8"			1/8"							
(Vertical)			Inner	1/16"			1/16"							
PL2	5/8"		Outer	3/16"			3/16"			1/8"			3/16"	
(Multi)			Inner	1/16"			1/16"			1/8"			1/8"	
PL3	3/8"		Outer	1/8"			1/8"							
(Vertical)			Inner	1/8"			1/8"							
PL4	1/2"		Outer	3/16"			1/16" x 4"	0.20"		Misc			3/16" x 12"	0.35" for 6" then 3/16", #4 - @ end, #10 - end of memb
(Multi)			Inner	1/16"						1/16" x 24"			1/16" x 36"	#7 - from edge, #10 - from end of memb, 1/16" x 12" above #7
PL5	3/8"		Outer	1/8"		1/8"	1/8"							
(Vertical)			Inner	1/16"			1/16"							
PL6	5/8"	2 x 5/8"	Outer	Misc			1/8"	1/16"	1/16"	1/8"			1/16"	⅛" for 18" then 1/16"
(Multi)			Inner	1/16" x 18"							1/16" 4" x 4"			#1 - From Edge, ⅛" along inner of Rein. PL

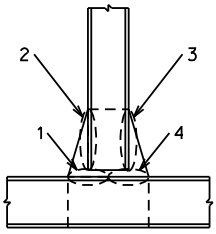
Span 2 - East Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL0	5/8"	5/8"	Outer		0.10"	0.20"			0.20"					
(Corner)			Inner		0.10"	0.20"	0.20"							
PL1	3/8"		Outer	1/16"			1/16"							
(Vertical)			Inner											
PL2	5/8"		Outer	1/8"			1/8"			1/8"			1/8"	
(Multi)			Inner	1/8"			1/8"			1/16"	1/16"		1/8"	
PL3	3/8"		Outer	1/8"			1/8"							
(Vertical)			Inner	1/8"			1/8"							
PL4	1/2"		Outer	1/16"			1/16"	1/16"		Misc.			1/16"	1/8" for 18" then 1/16" - starting @ edge
(Multi)			Inner	1/16"			1/16"						1/16"	
PL5	3/8"		Outer	1/8"		1/16"	1/8"							
(Vertical)			Inner											
PL6	5/8"	2 x 5/8"	Outer	Misc				1/16"	1/16"	1/16" x 24"			1/8" x 24"	#1 - 1/16" for 9" from edge then 1/8" for 15" #7,10 - from edge
(Multi)			Inner											

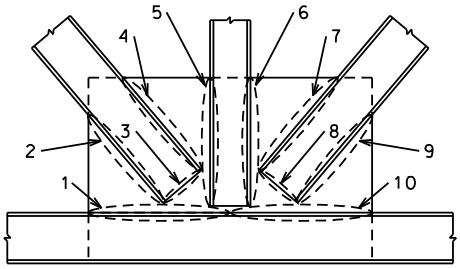
*All losses reported looking directly at each gusset plate.



"Corner" Type



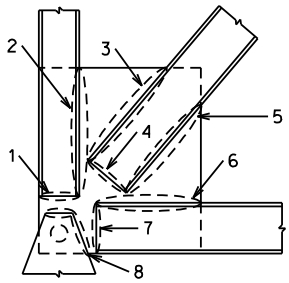
"Vertical" Type



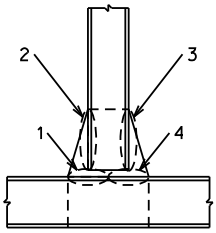
"Multi" Type

Span 3 - West Truss Gusset Plates														
Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL7	3/8"		Outer	1/8"	1/16"	1/16"	1/8"							⅛" around diaph & 3/16" x 3" dia - inside of PL
(Vertical)			Inner	1/8"			1/8"							
PL8	1/2"		Outer	0.20" x 12"		0.20"		1/16"	1/8" x 24"	1/8"			0.20"	hole in web of chord @ panel point, #1 - from end of memb
(Multi)			Inner										1/16"	
PL9	3/8"		Outer	1/8"			1/8"							
(Vertical)			Inner	1/16"			1/16"							
PL10	5/8"		Outer	1/8"			0.20"	0.20"	1/16"	1/16"	1/16"	1/16"	3/16"	
(Multi)			Inner										1/16"	
PL11	3/8"		Outer	1/16"			1/16"							
(Vertical)			Inner	1/8"	1/16"		1/8"							
PL12	5/8"		Outer	3/16"			1/8"	1/16"	1/16"	1/8"			1/8"	
(Multi)			Inner				1/16"	1/16"	1/16" x 9"	1/16"	1/16"		1/8"	⅛" @ inner diagonal rivets #6 - from end of memb
PL13	3/8"		Outer	0.20"	1/16"	1/8"	0.20"							3" hole in chord @ node
(Vertical)			Inner	1/16"	1/8"	1/8"	1/16"							
PL14	5/8"	3/4"	Outer		1/16" x 9"	Misc.			1/16"					#3 - ⅛" for 24" Then 1/16" 1/16" entire inside of PL
(Corner)			Inner		1/16"	1/16"			1/16"					

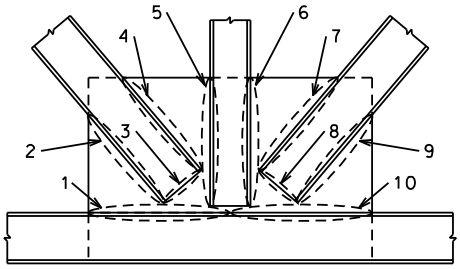
*All losses reported looking directly at each gusset plate.



"Corner" Type



"Vertical" Type

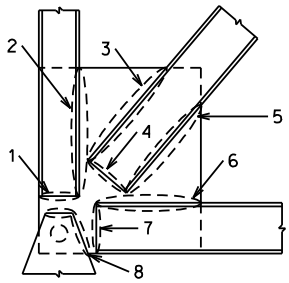


"Multi" Type

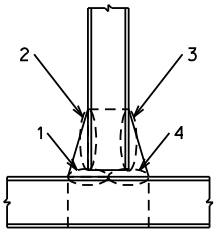
Span 3 - East Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL7	3/8"		Outer	1/8"			1/8"							
(Vertical)			Inner	1/16"		1/16"	1/16"							1/16" x 6" x 6" inside on north edge
PL8	1/2"		Outer	1/16"			1/8"		1/8"	1/16"			1/8"	
(Multi)			Inner	1/16"			1/16"		1/8"				1/16"	
PL9	3/8"		Outer	1/16"			1/16"							
(Vertical)			Inner											
PL10	5/8"		Outer	1/16"		1/16"	1/8"	1/16"	1/16"	Misc.			1/8"	⅛" for 4" then 1/16"
(Multi)			Inner	1/8" x 24"			1/16"	1/8"			1/16"		1/16" x 18"	#1,10 - from end of memb
PL11	3/8"		Outer	1/8"			1/8"							
(Vertical)			Inner											
PL12	5/8"		Outer	1/16"			1/8"	1/8"	1/16"	1/8"			1/16" x 9"	#10 - from end of memb
(Multi)			Inner	1/16"									1/16"	
PL13	3/8"		Outer	1/16"		1/16"	1/16"							
(Vertical)			Inner	1/16"		1/16"	1/16"							
PL14	5/8"	3/4"	Outer		1/16"	1/8" x 33"			1/16" x 9"					#3, #6 - from edge
(Corner)			Inner			1/16" x 9"			1/16"					#3 - from edge

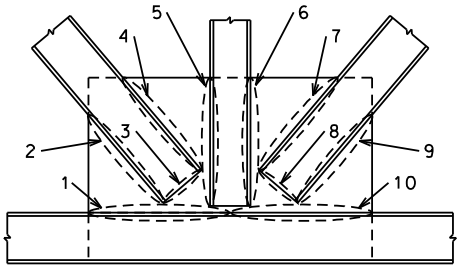
*All losses reported looking directly at each gusset plate.



"Corner" Type



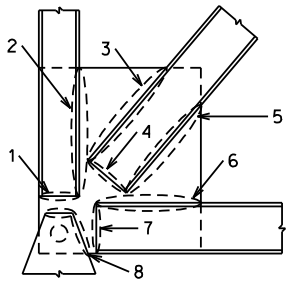
"Vertical" Type



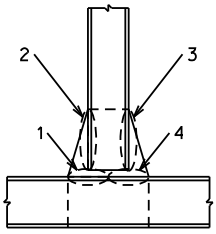
"Multi" Type

Span 4 - West Truss Gusset Plates														
Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
L0			Outer	See sketch on sheet C.66										
(Corner)			Inner											
L1			Outer	3/16"	3/16"	3/16"	3/16"							3"x3" perforation at end
(Vertical)			Inner		1/16"	1/16"								
L2			Outer	1/8"	1/8"		1/8"			1/8"	1/8"	1/8"	1/8"	
(Multi)			Inner	1/8"	1/8"		1/8"			1/8"	3/16"x 4"	1/8"	1/8"	
L3			Outer											
(Vertical)			Inner											
L4			Outer	1/8"	1/16"							1/16"	1/8"	
(Multi)			Inner				1/8"	1/16"	1/16"	1/8"				
L5			Outer	1/8"	1/8"	1/8"	1/8"							3/16" along SFGP conn
(Vertical)			Inner											
L6			Outer	1/8"	1/16"							1/16"	1/8"	Rand pit to 1/8"
(Multi)			Inner	1/8"	1/16"		1/8"	1/8"	1/8"	1/8"		1/16"	1/8"	1/16" around SFGP conn
L7			Outer	1/8"			1/8"							
(Vertical)			Inner	1/8"	1/16"	1/16"	1/8"							

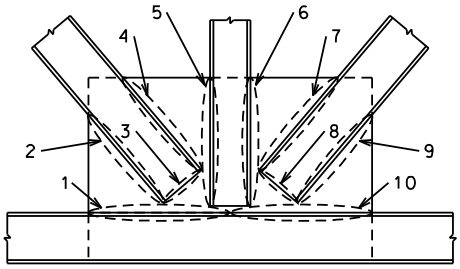
*All losses reported looking directly at each gusset plate.



"Corner" Type



"Vertical" Type

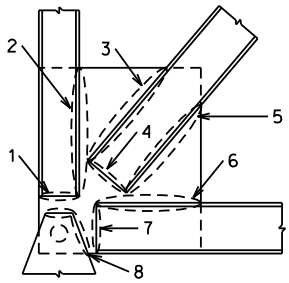


"Multi" Type

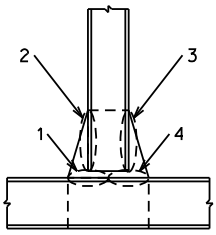
Span 4 - East Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
L0			Outer	See sketch on sheet C.67										
(Corner)			Inner											
L1			Outer	3/16"	3/16"	3/16"	3/16"							3"x3" perforation at end
(Vertical)			Inner		1/16"	1/16"								
L2			Outer	1/8"	1/8"		1/8"			1/8"	1/8"	1/8"	1/8"	
(Multi)			Inner	1/8"	1/8"		1/8"			1/8"	3/16"x 4"	1/8"	1/8"	
L3			Outer											
(Vertical)			Inner											
U3			Outer											1/16" @ post conn
(Upper Multi)			Inner									1/8"		1/8" along LGP
L4			Outer	1/8"	1/16"							1/16"	1/8"	
(Multi)			Inner				1/8"	1/16"	1/16"	1/8"				
U4			Outer											
(Upper Vertical)			Inner	1/16"										
L5			Outer	1/8"	1/8"	1/8"	1/8"							3/16" along SFGP conn
(Vertical)			Inner											
U5			Outer											1/32" @ post conn
(Upper Multi)			Inner											1/8" along LGP
L6			Outer	1/8"	1/16"							1/16"	1/8"	Rand pit to 1/8"
(Multi)			Inner	1/8"	1/16"		1/8"	1/8"	1/8"	1/8"		1/16"	1/8"	1/16" around SFGP conn
U6			Outer											1/8" x1.5"H @ post conn
(Upper Vertical)			Inner	1/8"x6" L		1/16"	1/8"x 8"L							1/16" along LGP
L7			Outer	1/8"			1/8"							
(Vertical)			Inner	1/8"	1/16"	1/16"	1/8"							
U7			Outer											
(Upper Multi)			Inner											1/16" along FB conn

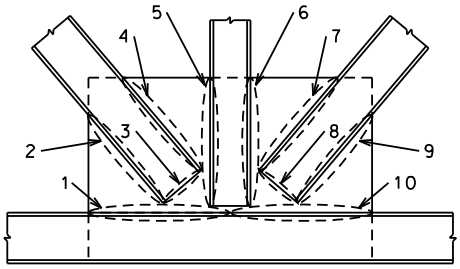
*All losses reported looking directly at each gusset plate.



"Corner" Type



"Vertical" Type

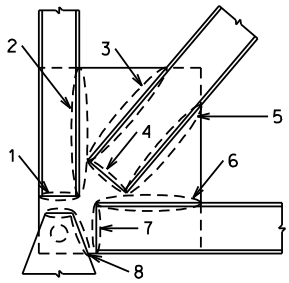


"Multi" Type

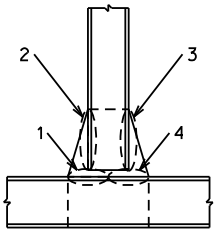
Span 5 - West Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
L8			Outer	See sketch on sheet C.66										
(Multi)			Inner											
L9			Outer	1/8"-3/16"16"Lx1"	1/8" x 1/2"W	1/8" SL x 1/2"W	1/8"SL16"Lx1"H							
(Vertical)			Inner	1/8"	1/8"	1/8"	1/8"							3/16"-1/4" SL x 1 1/2"H along length of LGP
L10			Outer	1/8"			1/8"	1/8"	1/8"			1/8"	1/8"SL	1/8" SL along LGP
(Multi)			Inner	1/8"x18"L			1/8"	1/8"	1/8"			1/8"	1/8"	
L11			Outer	1/8"	1/8"	1/8"	1/8"							Between #9 & 10, # 1 & 2 - Rand. 2"x2" areas of 1/8"
(Vertical)			Inner	1/8"	1/8"	1/8"	1/8"							
U11			Outer											1/16" SL along interface of strut/portal bracing conn
(Upper Multi)			Inner											
L12			Outer	1/8"x18"L	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	6"H x 9"L 1/8"SL along LGP, 1/16" along top of GP between loc 5 and 6
(Multi)			Inner	1/8"x18"L	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	
L13		3/4"	Outer	1/8"x9"L			1/8"							1/8" SL x 6"H along LGP, north half of plate
(Vertical)			Inner	1/8"			1/8"							
U13			Outer							1/16"				
(Upper Multi)			Inner											
L12'			Outer	1/8-3/16" x 10" L									1/8" SL 24"L	
(Multi)			Inner	1/8"									1/8"	
U12'			Outer		1/16" x 6"L									
(Upper Vertical)			Inner											
L11'			Outer	3/16"			3/16"							3/16"x 18"L along lateral GP conn, 1/8" in 3" x 3" areas rand. inside S side
(Vertical)			Inner	1/8"			1/8"							
U11'			Outer											1/16" SL along interface of strut/portal bracing conn
(Upper Multi)			Inner											

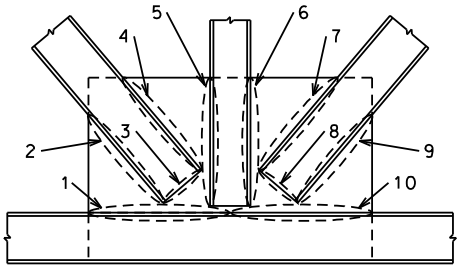
*All losses reported looking directly at each gusset plate.



"Corner" Type



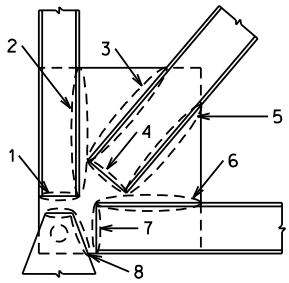
"Vertical" Type



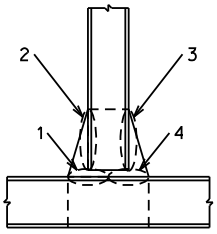
"Multi" Type

Span 5 - West Truss Gusset Plates (cont.)														
Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
L10'			Outer	1/8"				1/8" x 9" H					1/8" x 9" 1/4" x 10"	3/16"x2"H SL along LGP conn top side
(MLIti)			Inner	1/8"									1/8"	3/16" SL 6"Wx12"H around horiz strut conn
U10'			Outer	9"L x 1/8"										3/4" drilled hole N side, below TC conn
(Upper Vertical)			Inner											
L9'			Outer	1/8"-3/16"	3/16"	3/16"	1/8"-3/16"							
(Vertical)			Inner	1/8"-3/16"	3/16"	3/16"	1/8"-3/16"							
L8'			Outer	See sketch on sheet C.66										
(MLIti)			Inner											

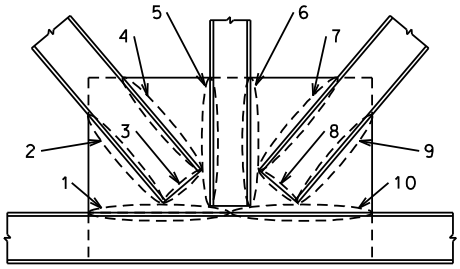
*All losses reported looking directly at each gusset plate.



"Corner" Type



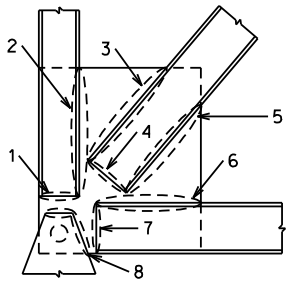
"Vertical" Type



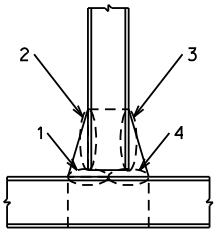
"Multi" Type

Span 5 - East Truss Gusset Plates																
Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses												
				1	2	3	4	5	6	7	8	9	10	Misc.
L8			Outer	See sketch on sheet C.67										
(Multi)			Inner											
L9			Outer		1/8"	1/8"	1/8"x 8"L							
(Vertical)			Inner		1/8"	1/8"								1/8" 16"Lx3"H at end, 3/16" 16"Lx2"H on outside face near # 4
U9			Outer											
(Upper Multi)			Inner											1/2" perforation at end
L10			Outer	3/16"			3/16"	3/8"		1/16"				
(Multi)			Inner	3/16"			1/16"	1/8"					1/8"	1/8"x2'L along LGP
L11			Outer	1/8"										
(Vertical)			Inner	1/16"		1/8"x.5 "W	1/8"							1/8"x3"H along top LGP
L12			Outer									1/32"	1/16"	1/16" 6"x6" between # 9&10, 1/16" 12.5"x4" between # 1&2
(Multi)			Inner	1/16"										1/16" along LGP, 1/8" 2"x2"at rein. PL 1/8" at end of vert, 1/8" along LGP
U12			Outer											
(Upper Vertical)			Inner						1/16"x 3"H					
L13			Outer	1/16"x 6"H			3/16"x 8"L							1/32" along LGP
(Vertical)			Inner	1/8"x1 4"L										1/8" 14"Lx.5"H @ rein PL, 3/16" 8"Lx1"H near BC, 3/16" 4" along HGP, 1/8" FWx3"H @ brace, 3/16" 1'Lx4"H behind util box
L12'			Outer	3/16"									1/8"	3/16" 3"x4"H and 6"x6" near BC, 1/8" 8"x1" near diag
(MLlti)			Inner	1/8"	1/8"									3/16"x13"x1" - diag, 3/16" around FB conn, 3/16"x4" - sml GP, 1/16" 2"x2" - diag

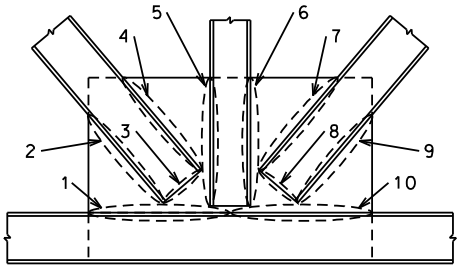
*All losses reported looking directly at each gusset plate.



"Corner" Type



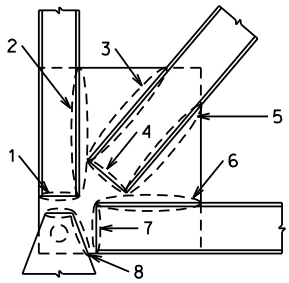
"Vertical" Type



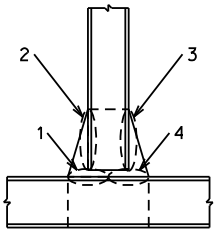
"Multi" Type

Span 5 - East Truss Gusset Plates (cont.)														
Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
L11'			Outer	3/16"x 8"L		1/8"	3/16"							3/16" 1"x9" near BC
(Vertical)			Inner	1/8"x2' L		1/16"x 1'H								1/4"x2"H along bracing conn, 1/8" 10"Lx1"H near vert, 3/16" along LB angle
L10'			Outer	1/8"			1/16"		1/8"				1/8"	1/8" 1"x1" near BC
(Multi)			Inner	1/8"			1/16"		1/8"				1/16"	1/8" 6"X4" near diag, 1/8" around LB conn, 3/16" 2"x9" btwn Loc. 1&10, 3/16" 16"x8" near BC
L9'			Outer	1/8"	1/8"	1/8"	1/8"							1/8" at vert conn
(Vertical)			Inner	1/8"	1/8"	1/8"	1/8"							1/8" at vert conn
L8'			Outer	See sketch on sheet C.67										
(MLlti)			Inner											
U8'			Outer											1/16" 3"X2" near BC
(Upper Vertical)			Inner											2x1/2" perforation at end

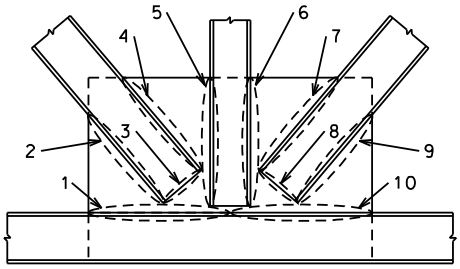
*All losses reported looking directly at each gusset plate.



"Corner" Type



"Vertical" Type

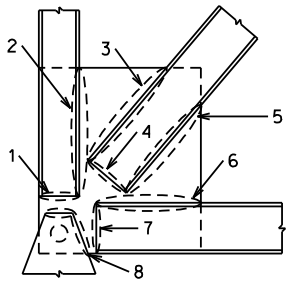


"Multi" Type

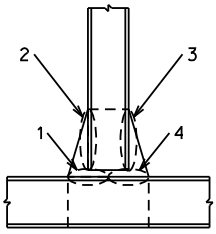
Span 6 - West Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
L7'			Outer	1/8"	1/8"	1/8"	1/8"							
(Vertical)			Inner	1/8"	1/8"	1/8"	1/8"							
L6'			Outer	1/8" 6"W	1/8"		1/8"	1/8"	1/8"	1/8"		1/8"	1/8" 6"W	
(MLIti)			Inner	1/8" 6"W	1/8"		1/8"	1/8"	1/8"	1/8"		1/8"	1/8" 6"W	
U6			Outer											
(Vertical)			Inner			1/8" x 24" H	1/8" x 20" W							
U5			Outer											
(Multi)			Inner										1/8"	
L4'			Outer	1/8"	1/8"		1/8"	1/8"	1/8"	1/8"		1/8"	1/8"	
(MLIti)			Inner	1/8"	1/8"		1/8"	1/8"	1/8"	1/8"		1/8"	1/8"	
U4			Outer											
(Vertical)			Inner				1/8"							
L1'			Outer	1/8"	1/8"	1/8"	1/8"							
(Vertical)			Inner	1/8"	1/8"	1/8"	1/8"							
L0'			Outer	See sketch on sheet C.66										
(Corner)			Inner											
U0'			Outer											
(Upper Corner)			Inner		1/8"									

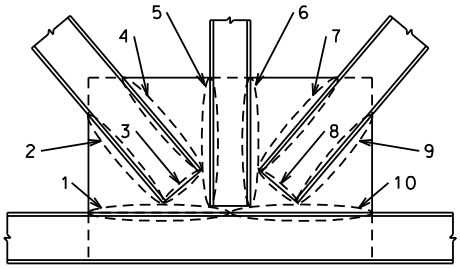
*All losses reported looking directly at each gusset plate.



"Corner" Type



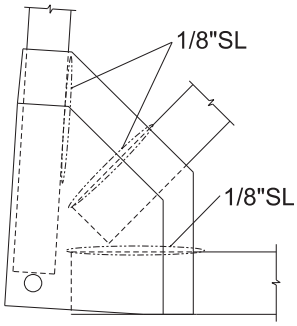
"Vertical" Type



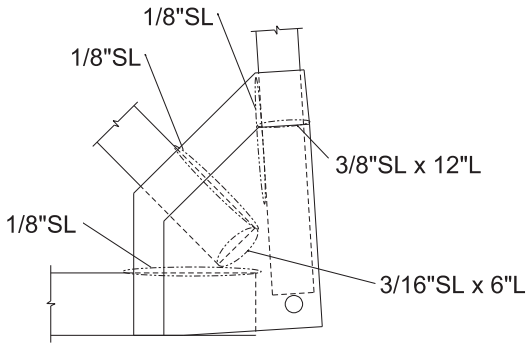
"Multi" Type

Span 6 - East Truss Gusset Plates														
Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
L7'			Outer											
(Vertical)			Inner	1/8"	1/16"	1/16"	1/8"							
L6'			Outer	1/8"	1/16"		1/16"	1/16"	1/16"	1/16"		1/16"	1/8"	
(MLIti)			Inner	1/8"	1/16"		1/16"	1/16"	1/16"	1/16"		1/16"	1/8"	
L5'			Outer	1/16"	1/16"	1/16"	1/16"							
(Vertical)			Inner	1/16"	1/16"	1/16"	1/16"							
L4'			Outer	1/16"	1/8"		1/8"			1/8"		1/8"	1/16"	
(MLIti)			Inner											
L3'			Outer	1/8"	1/8"	1/8"	1/8"							
(Vertical)			Inner	1/8"	1/8"	1/8"	1/8"							
L2'			Outer				1/16"	1/8"		1/16"				
(MLIti)			Inner											
L1'			Outer		3/16"	3/16"								
(Vertical)			Inner		1/8"	1/8"								1/8" along strut 4"x4" and 2"x1"
L0'			Outer	See sketch on sheet C.67										
(Corner)			Inner											
U0'			Outer											
(Upper Corner)			Inner		1/8"									

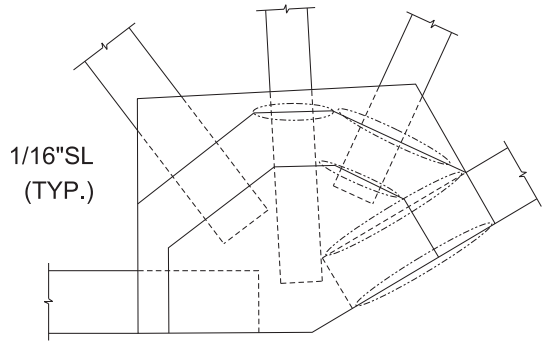
*All losses reported looking directly at each gusset plate.



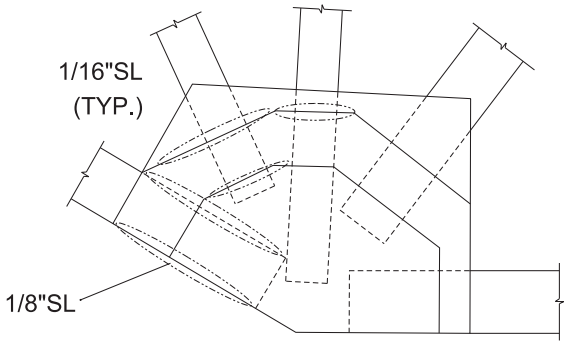
L0 - WEST TRUSS OUTER GUSSET



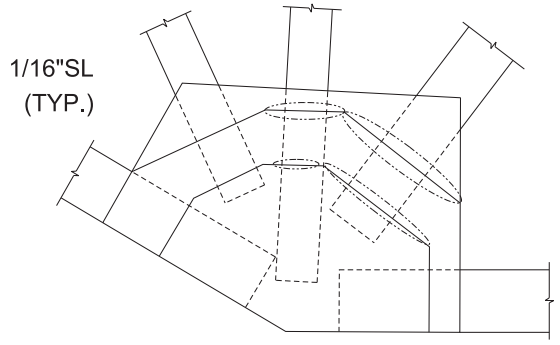
L8 - WEST TRUSS INNER GUSSET



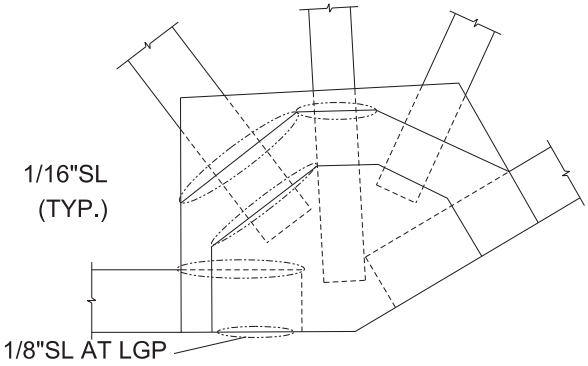
L8 WEST TRUSS OUTER GUSSET



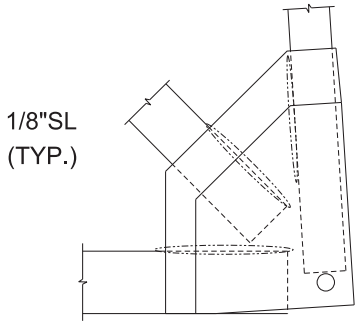
L8 WEST TRUSS INNER GUSSET



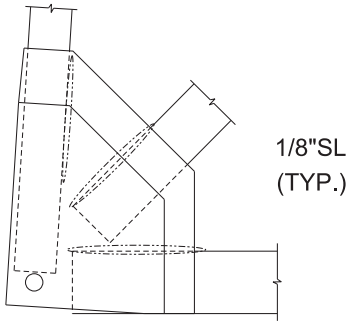
L8' WEST TRUSS OUTER GUSSET



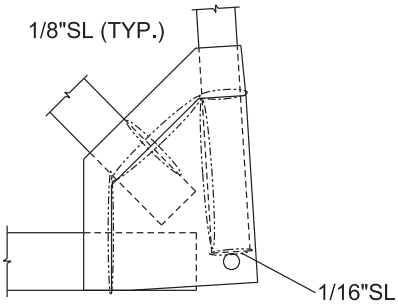
L8' WEST TRUSS INNER GUSSET



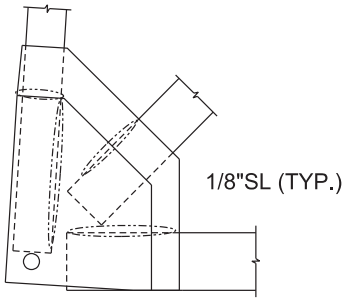
L0' WEST TRUSS OUTER GUSSET



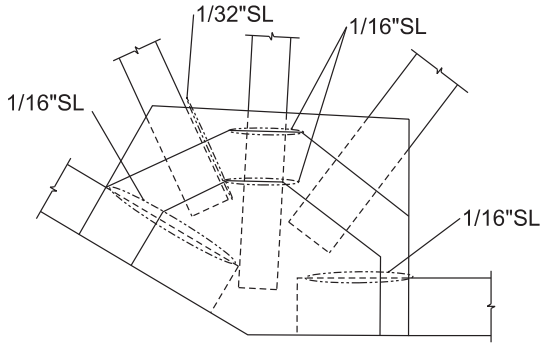
L0' WEST TRUSS INNER GUSSET



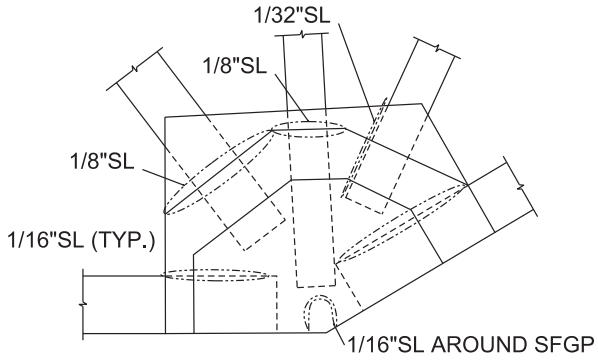
L0 - EAST TRUSS OUTER GUSSET



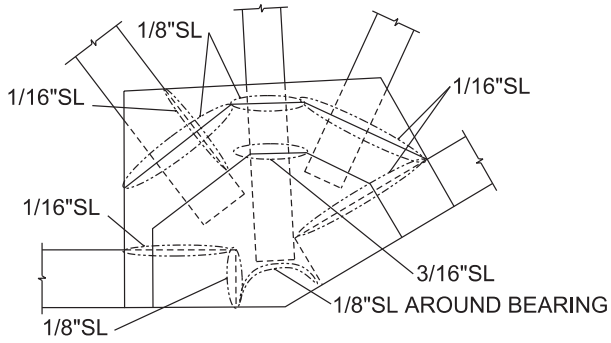
L8 - EAST TRUSS INNER GUSSET



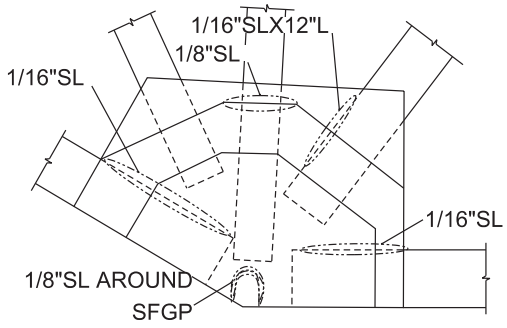
L8 EAST TRUSS OUTER GUSSET



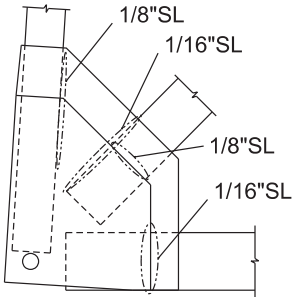
L8 EAST TRUSS INNER GUSSET



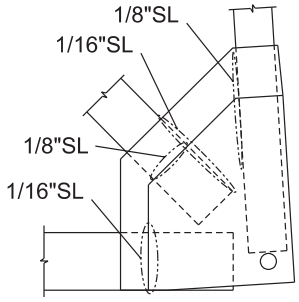
L8' EAST TRUSS OUTER GUSSET



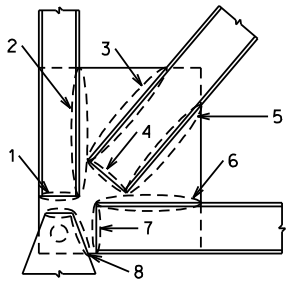
L8' EAST TRUSS INNER GUSSET



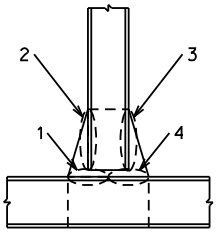
L0' EAST TRUSS OUTER GUSSET
NOTE: 1/8" SL ALONG LGP



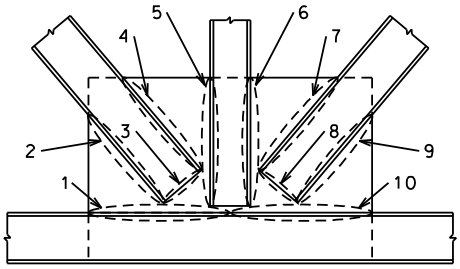
L0' EAST TRUSS INNER GUSSET
NOTE: 1/8" SL ALONG LGP



"Corner" Type



"Vertical" Type

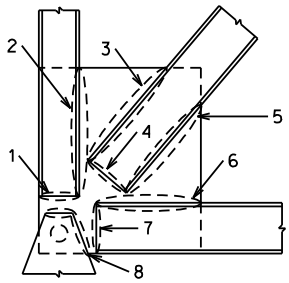


"Multi" Type

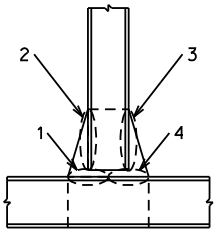
Span 7 - West Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL0	3/4"	3/4"	Outer		1/16"			Misc	1/8"	1/8"				1/16" - 6"x6" @ edge
(Corner)			Inner		1/16"	1/8"		1/16"	1/16"					
			Inner-Rein.											multiple 1/8" pits
PU0	3/8"		Outer	1/16"		1/16"	1/16"							
(Upper Vertical)			Inner											
PL1	3/8"		Outer	1/8"	1/8"	1/8"	1/8"							
(Vertical)			Inner	1/16"		1/8"	1/16"							
PL2	5/8"		Outer	1/8"			1/8"	1/8"	1/16"	1/8"			1/8"	
(Multi)			Inner											1/8" x 2" high along interior diaphragm
PL3	3/8"		Outer	1/8"	1/8"	1/8" for 8"	1/8"							#3 - from bott.
(Vertical)			Inner											
PL4	5/8"		Outer	1/16"					1/16" for 20"				1/16" for 32"	#6 - from bott. #10 - from panel point
(Multi)			Inner											1/8" x 1"-5" high along interior diaphragm
PL5	3/8"		Outer	1/8"	1/8"	1/8"	1/8"							
(Vertical)			Inner											
PL6	5/8"		Outer	1/8"			0.20"	0.20"	1/8"	1/8"	1/16" 6"x6" @ Bott Diag		1/8"	0.20" x 6" dia above interior diaphragm
(Multi)			Inner											0.15" along top of interior diaphragm
PL7	3/8"		Outer	1/8"	1/16"		1/8"							
(Vertical)			Inner											
PL8	3/4"	3/4"	Outer		1/16"				1/8"		1/16"			
(Corner)			Inner		1/16" + 0.20"	1/16"		1/16"	1/16"					0.20" x 2" inside above corner of rein. PL

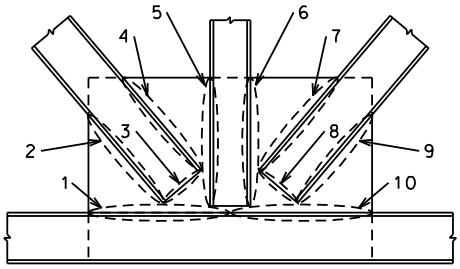
*All losses reported looking directly at each gusset plate.



"Corner" Type



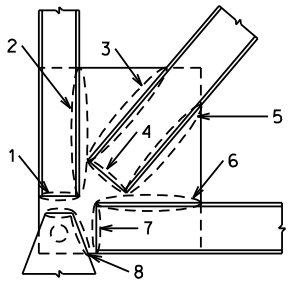
"Vertical" Type



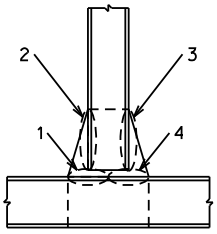
"Multi" Type

Span 7 - East Truss Gusset Plates														
Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL0	3/4"	3/4"	Outer		1/16"	Misc			1/16"					#3 - ⅛" top ½ then 1/16 5% loss - inside of entire PL
(Corner)			Inner			1/8"			1/16"	1/16"				
PU0	3/8"		Outer											⅛" x 2" & 1/16" x 1" in chord @ U1
(Upper Vertical)			Inner											
PL1	3/8"		Outer	1/8"	1/8"	1/8"	1/8"							
(Vertical)			Inner											
PL2	5/8"		Outer	1/16 for 12"			1/16"	1/8"	1/8"	1/16"			Misc	#1 - from end of memb #10 - ⅛ for 12" then 1/6"
(Multi)			Inner					1/16"						
PL3	3/8"		Outer	1/8"			1/8"							
(Vertical)			Inner	1/16"			1/16"							
PL4	5/8"		Outer				Misc		1/8"	1/16"			1/16"	1/16" for 20" from bott
(Multi)			Inner											
PL5	3/8"		Outer	1/8"		1/8"	1/8"							
(Vertical)			Inner		Misc									⅛" for 5"
PL6	5/8"		Outer				Misc	1/8"	1/8"	1/8"			1/8"	⅛" Top 10" then 1/16
(Multi)			Inner				1/16"	Misc						⅛" Top 14"
PL7	3/8"		Outer											
(Vertical)			Inner	1/16"			1/16"							
PL8	3/4"	3/4"	Outer		1/8"	1/8"			1/16"					
(Corner)			Inner						1/16"	1/16"	1/8"			0.20" x 8" in Lower Corner

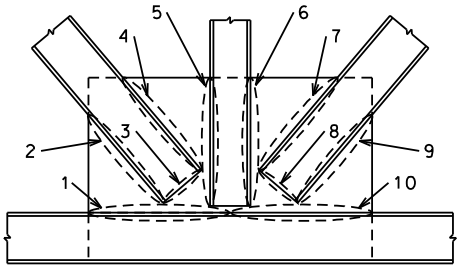
*All losses reported looking directly at each gusset plate.



"Corner" Type



"Vertical" Type

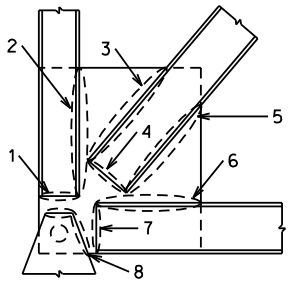


"Multi" Type

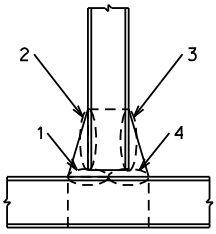
Span 8 - West Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL14	5/8"	3/4"	Outer		1/16"	1/16" x 24"			1/16"					#3 - from edge ⅛" along int. rein. PL
(Corner)			Inner		1/8"	1/8"			1/16"	1/16"				⅛" along int rein. PL
PU14	3/8"		Outer	1/16"			1/16"							
(Upper Vertical)			Inner											
PL13	3/8"		Outer	1/8"	1/8"	1/8"	1/8"							1" hole in bott chord @ L13
(Vertical)			Inner	1/8"		Misc.	1/8"							3" hole w/ ⅛" elsewhere
PL12	5/8"		Outer	1/8"			1/16"	1/8"	1/8"	1/8"		1/16"	0.15"	
(Multi)			Inner	1/16"			1/16"	1/16"					1/16"	⅛" along int. diaphragm varying in height
PL11	3/8"		Outer	1/8"	1/4"		1/8"							
(Vertical)			Inner											⅛" along diaphragm
PL10	5/8"		Outer	1/8"					1/8"				1/8"	
(Multi)			Inner											⅜" along diaph. 3"-4" high
PL9	3/8"		Outer	1/16"	1/16"		1/16"							
(Vertical)			Inner											
PL8	1/2"		Outer	1/8"			Misc		Misc	1/16"			1/8"	#4 - 0.20" for 18" then ⅛" #6 - 0.20" x 12" 0.15" x 2.5" @ bott. chord
(Multi)			Inner	1/16"					1/16"					⅜" along diaph. 3"-4" high
PL7	3/8"		Outer											
(Vertical)			Inner	1/8" x 16"		1/8" x 9"								#1 - from edge #3 - from bott

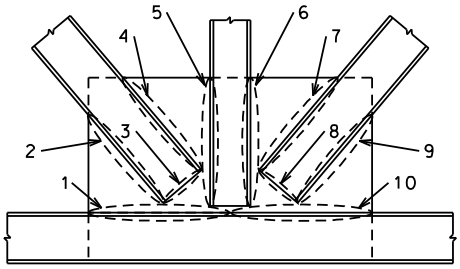
*All losses reported looking directly at each gusset plate.



"Corner" Type



"Vertical" Type

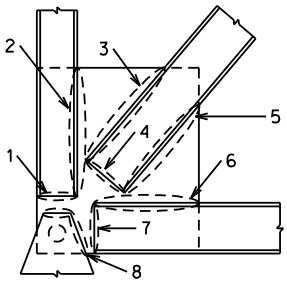


"Multi" Type

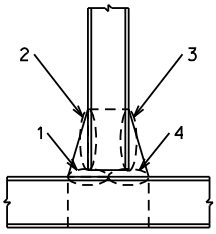
Span 8 - East Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL14	5/8"	3/4"	Outer		1/16" x 12"	1/8"			1/8"					#2 - from bott. 0.20" x 2"- bott edge of PL
(Corner)			Inner		1/16"	1/16"			1/8"	1/8"				⅛" x 2" along int. rein. PL
PL13	3/8"		Outer	Misc	1/8"	1/8"	Misc							full perf. along bott chord
(Vertical)			Inner	1/8"			1/8"							
PL12	5/8"		Outer	1/8"			1/8"	1/16"	1/16"	1/16"			1/16"	
(Multi)			Inner					1/16" x 9"	1/16" Top ½	1/8"				#5 - from bott.
PL11	3/8"		Outer	1/16"	1/16"		1/16"							
(Vertical)			Inner											
PL10	5/8"		Outer	1/16"			1/8"	1/8" Bott ½		1/16"			1/8"	#5 - from bott.
(Multi)			Inner	1/16"									1/16"	
PL9	3/8"		Outer	1/16"	1/16"		1/16"							
(Vertical)			Inner											
PL8	1/2"		Outer	1/8"			1/16"		1/8"	1/8"			1/8"	
(Multi)			Inner											
PL7	3/8"		Outer	1/8"		0.20"	1/8"							
(Vertical)			Inner											

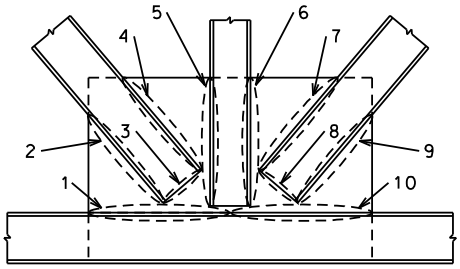
*All losses reported looking directly at each gusset plate.



"Corner" Type



"Vertical" Type



"Multi" Type

Span 9 - West Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL6	5/8"	2 x 5/8"	Outer					1/16"		1/16"			Misc	1/16"- last ½ from edge
(Multi)			Inner											⅛"x18" along int rein. PL
PL5	3/8"		Outer	1/16"			1/16"							1/16" - 0.325" along Int. diaphragm
(Vertical)			Inner	1/16"			1/16"							
PL4	1/2"		Outer					1/16" Bott. ½					1/16" x 36"	#10 - from edge
(Multi)			Inner										1/16" Last 12"	1/16" x 12" along int rein. PL
PL3	3/8"		Outer	1/16"			1/16"							
(Vertical)			Inner	Misc			Misc							⅛" w/ 4" Hole
PL2	5/8"		Outer	1/8"			1/16"			1/4"	1/4"		1/8"	1/8" Pits Lower South Corner
(Multi)			Inner						1/16" 1st Half					1/16" along int. stiffener #6 - from end of memb
PL1	3/8"		Outer		0.20" 1st ½		1/8"							#2 - from bott
(Vertical)			Inner											
PLO	5/8"	5/8"	Outer		1/16"						1/8"			
(Corner)			Inner		1/16" Top ½									

Span 9 - East Truss Gusset Plates

Plate ID (Type)	Primary Plate Thickness	Rein. Plate Thickness	Inner/ Outer	Losses										
				1	2	3	4	5	6	7	8	9	10	Misc.
PL6	5/8"	5/8"	Outer	Misc				1/16" x 18"	1/16" x 18"				1/16"	⅛" - 4" along top and 4" down end #5,6 - from node
(Multi)			Inner							1/16" x 18"			1/16"	#7 - from edge
PL5	3/8"		Outer	1/16"		1/8"	1/16"							
(Vertical)			Inner											
PL4	1/2"		Outer	1/16"			1/16" x 12"	1/16"	1/8"					#4 - measure 6" from edge
(Multi)			Inner	1/16"									1/16" bott ¾	
PL1	3/8"		Outer				1/16"							
(Vertical)			Inner											
PLO	5/8"	5/8"	Outer		1/16"				1/16"		1/16"			
(Corner)			Inner						1/16 1st 25"	1/16"	1/16"			

*All losses reported looking directly at each gusset plate.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

APPENDIX D – 2016 INSPECTION AND CONDITION SUMMARY

GENERAL SULLIVAN BRIDGE - DOVER 200/023
OVER THE LITTLE BAY

NEWINGTON-DOVER, 11238S

Vanasse Hangen Brustlin, Inc.
2 Bedford Farms Drive
Bedford, NH 03110

HDR Engineering, Inc.
695 Atlantic Ave 2FL
Boston, MA 02111

Appendix D – June 2016 Inspection Summary

VHB and HDR completed and in-depth inspection of the General Sullivan Bridge from June 8th to June 17th 2016.

This appendix includes a summary of the 2016 inspection findings and generally follows the same format as the Bridge Condition section of the report that was developed following the 2014 bridge inspection. The major National Bridge Inventory (NBI) element categories are provided as section headers with an overall condition summary followed by descriptions and photographs within each category.

The major bridge components include:

Item 58 – Deck

- Deck
- Wearing Surface
- Railing
- Joints

Item 59 – Superstructure

- Stringers
- Floorbeams
- Truss and Gusset Plates
- Lateral Bracing and Sway Bracing
- Bearings

Item 60 – Substructure

- Abutments
- Piers

Other

- Utility – Gas Line

Condition changes or additional deficiencies since the 2014 inspection are described in the corresponding categories to which it occurs.

Item 58 Deck – Serious Condition (3)

Deck, Wearing Surface, Railings and Joints

The majority of the deck condition is similar to 2014. Some areas along the top and the sides of the sidewalk exhibit additional cracking, spalling and deterioration since 2014.

There is a chain-link fence barrier along the entire bridge that restricts users to the middle 15 feet of the deck except in Span 7 which is restricted to the middle 10 feet. This fence is in generally good condition. At the time of the inspection, the gate hinges at Span 7 were broken.

Typical deck topside deficiencies include:

- Extensive cracking, spalling and deterioration of the concrete sidewalks (Photo D1)
- Cracking and vegetation growth in the asphalt wearing surface (Photo D2)
- Severe deterioration and section loss in the original bridge railing members (Photo D3)
- Similar to the 2014 inspection, all but one (Pier 7) of the deck joint seals have failed. The armored joints on the sidewalks are rusted throughout, which has resulted in prying and displacement between the two deck ends.

Typical deck underside deficiencies include:

- Light to moderate cracking with efflorescence and rust staining throughout (Photo D4)
- Extensive areas with delaminations or spalling with exposed reinforcing steel (Photo D5)
    - Spalls range in size up to 36 square feet
    - Spalls are typically 3 inches deep, but some smaller spalls are up to 4 inches deep
- Extensive cracking, spalling, exposed rebar, and rebar section loss along the east and west deck fascias at curb opening locations and on the solid sections between curb openings (Photo D6)

Large imminent spalls on the underside of the deck were observed in 2014 and a list of their locations was provided in the 2014 Inspection Report. Several additional imminent spalls were observed in 2016 and their locations are list below:

- Span 3, south of Floorbeam 6, at Stringer 1 – 3’ x 3’ (Photo D7)
- Span 3, mid-panel between Floorbeams 8 and 9, at Stringer 5 – 4’ x 4’
- Span 3, mid-panel between Floorbeams 5 and 6, at Stringer 4 – 3’ x 3’
- Span 7, north of Floorbeam 6, at Stringer 5 – 4’ x 3’

Photo D1: Span 1 and 2 East Sidewalk – Concrete and Railing Deterioration

Photo D2: Top of Deck at Newington Abutment Looking North

Photo D3: Span 3 East Bridge Railing – Lower Rail Section Loss

Photo D4: Span 8 – Typical Deck Cracking and Efflorescence

Photo D5: Span 9 - Spalled Deck Areas with Exposed Rebar

Photo D6: Span 6 – Spalls and Exposed Rebar at Curb Openings

Photo D7: Span 3 – Imminent Deck Spall

Item 59 Superstructure – Critical Condition (2)

Floor System – Stringers

The exterior stringers are in significantly worse condition compared to the interior stringers. Stringers adjacent to joints and deck ends also have more paint loss and section loss. (Photo D8 and Photo D9). The majority of the interior stringers and floorbeams exhibit only minor increases in section loss since 2014. However, sample inspections of exterior stringers in Spans 3 thru 7 exhibit significant increased section loss since 2014. (Photo D10 thru Photo D13).

Typical section losses at stringers include:

- Spans 4 thru 6 – The web and flanges of exterior stringers where framed into transverse floorbeams (Photo D10 and Photo D11).
- Spans 1 thru 3 and 7 thru 9 -The web and flanges of exterior stringers where supported by transverse floorbeams (Photo D13 and Photo D14).
  Intermittently, along the bottom flange, the bottom of web and in a few locations the top flange and top of web on exterior stringers (Photo D12 and Photo D15).

As noted in the 2014 Inspection Report, at several of the exterior stringers, the top flange has completely separated from the deck and the stringers are sagging. (Photo D16 and Photo D17)

Since the 2014 inspection and load rating there are five additional exterior stringers deemed to have zero capacity based on the 2016 inspection. Locations include:

- Span 3 West Exterior, Panels 10, 12, and 13
- Span 4 West Exterior, Panel 5
- Span 7 West Exterior, Panel 1

Floor System – Floorbeams

The majority of floorbeams exhibit only minor increases in section loss since 2014. Floorbeams adjacent to joints and deck ends are the most deteriorated with significant section losses. (Photo D18)

Typical section losses at floorbeams include:

- Spans 1 thru 3 and 7 thru 9 – Web, flanges and rivets at the cantilevered end portion of floorbeams (Photo D19)
- Spans 4 thru 6 – Web, flanges and rivets at the truss connection (Photo D20)

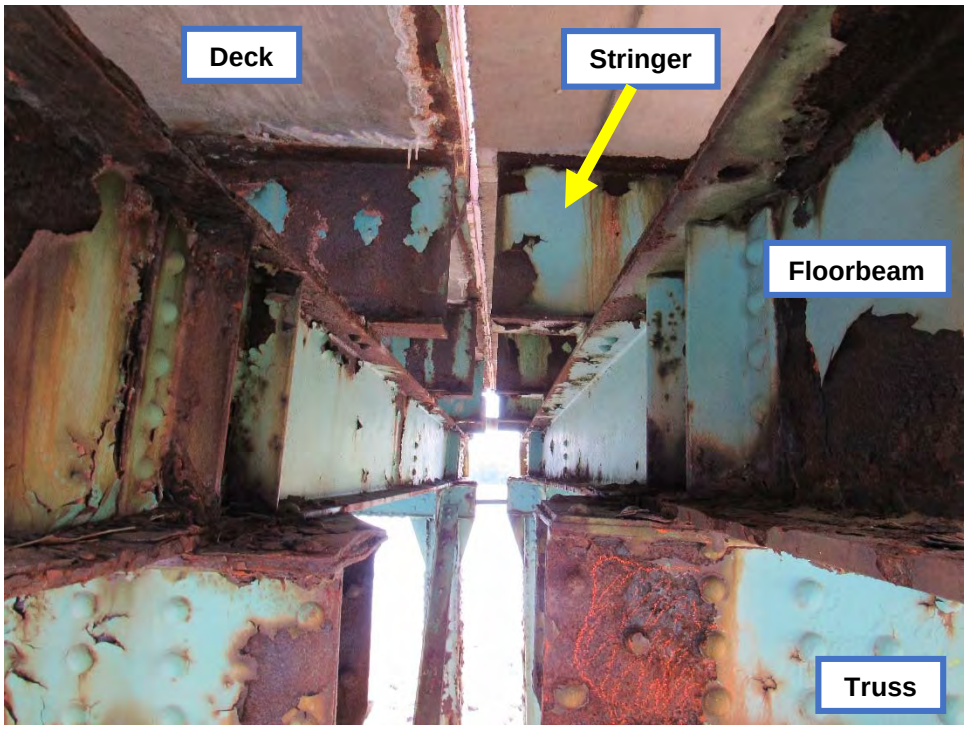


Photo D8: Span 1 and 2 Floor System - Typical Condition at Joint Locations

Photo D9: Span 7 and 8 Stringer at Deck Joint

Photo D10: 2014 Inspection - Span 6 Exterior Stringer

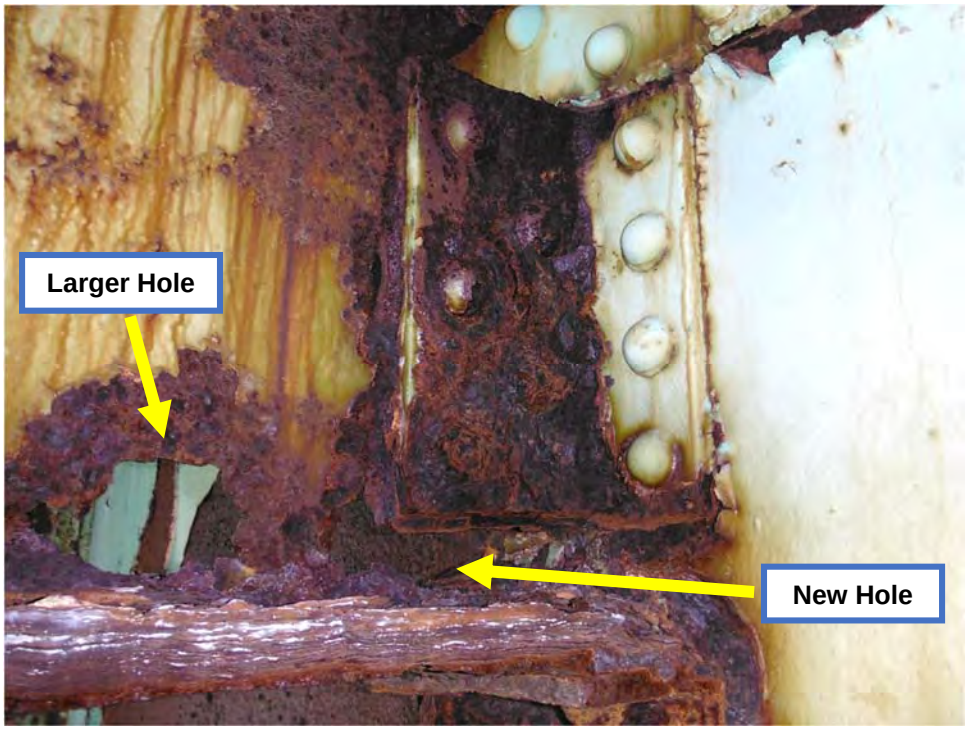


Photo D11: 2016 Inspection – Span 6 Exterior Stringer (New Holes)

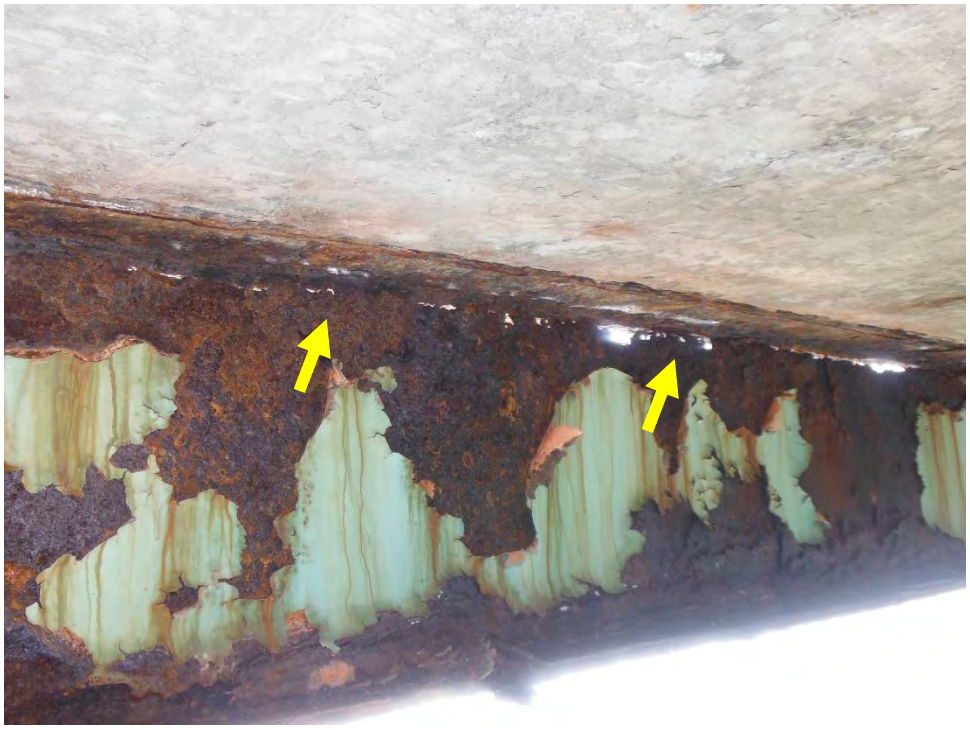


Photo D12: 2014 Inspection - Span 3 Exterior Stringer

Photo D13: 2016 Inspection – Span 3 Exterior Stringer (Increased Section Loss)

Photo D14: Span 2 Exterior Stringers at Floorbeam Support

Photo D15: Span 1 Exterior Stringer – Bottom Flange and Web Section Loss

Photo D16: Span 6, West Exterior Stringer Separated From Deck

Photo D17: Span 6, West Exterior Stringer – Heavy Section Loss at Floorbeam Connection

Photo D18: Span 8 – Floorbeam at Deck Joint

Photo D19: Span 8 Floorbeam – Section Loss at End Region

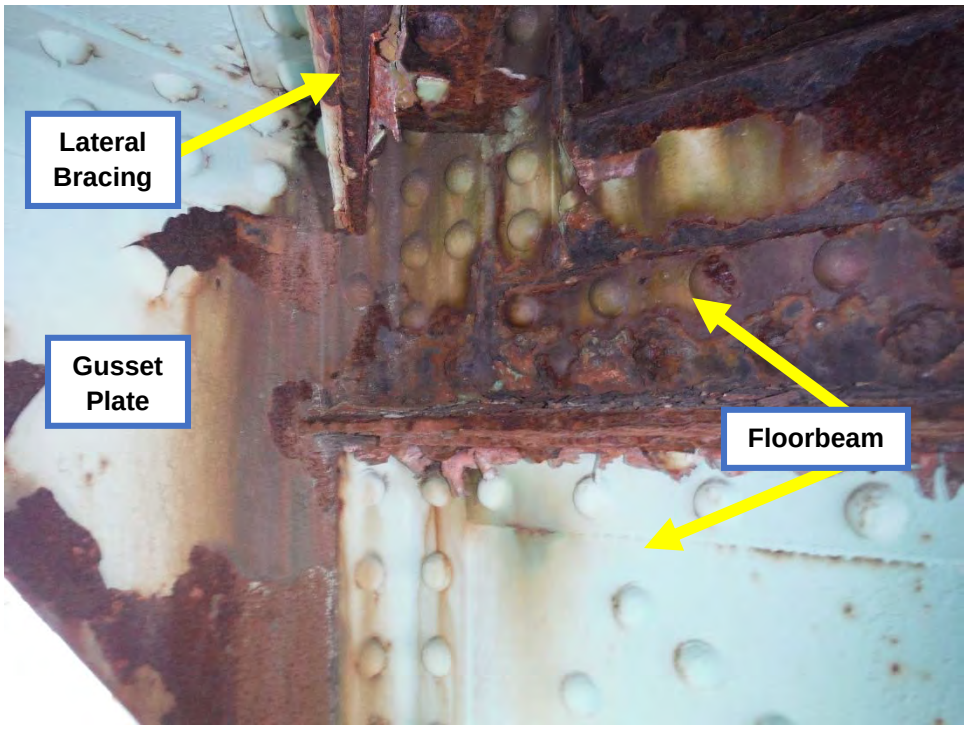


Photo D20: Span 6 Floorbeam (Panel 0') – Section Loss at Truss Connection

Truss and Gusset Plates

The majority of the truss members and gusset plates exhibit slight to minor increases in section loss since 2014. Bottom chord members and gusset plates are generally in worse condition compared to the top chord members and gusset plates.

Typical section losses of truss members include:

- The top flange of channels at lace bars (Photo D21)
- The top of the bottom flange of channels and the web along the bottom flange (Photo D22)
- The web and flanges of channels at gusset plate and/or batten plate connections (Photo D23)

Minor to moderate section loss on rivet heads was found sporadically throughout the bridge, but no rivets appeared to be loose or cracked (Photo D24). As noted in the 2014 Inspection Report, intermittent, pack rust between channels and web plates, batten plates and/or lace bars is also common throughout the bridge. (Photo D25)

Typical section losses of gusset plates include:

- Exterior faces – Along the top of bottom chord, diagonal, and/or vertical member connections (Photo D26)
- Interior faces – Along the top and/or sides of stiffener/diaphragm connections (Photo D27)

Visible and measurable increases in section loss since 2014 of truss members and gusset plates are generally limited to locations near bridge deck joints (Photos D28 thru Photo D33). Some of the gusset plates along the bottom chords exhibit minor increases in section loss. A new corrosion hole was also discovered in the web of Span 4 vertical member L3-U3 (Photo D34).

Photo D21: Span 3 Bottom Chord – Section Losses at Lace Bars

Photo D22: Span 7 – Diagonal Losses at Bottom Flange and Web

Photo D23: Span 2 Diagonal Member - Losses at Gusset and Batten Plate Connections

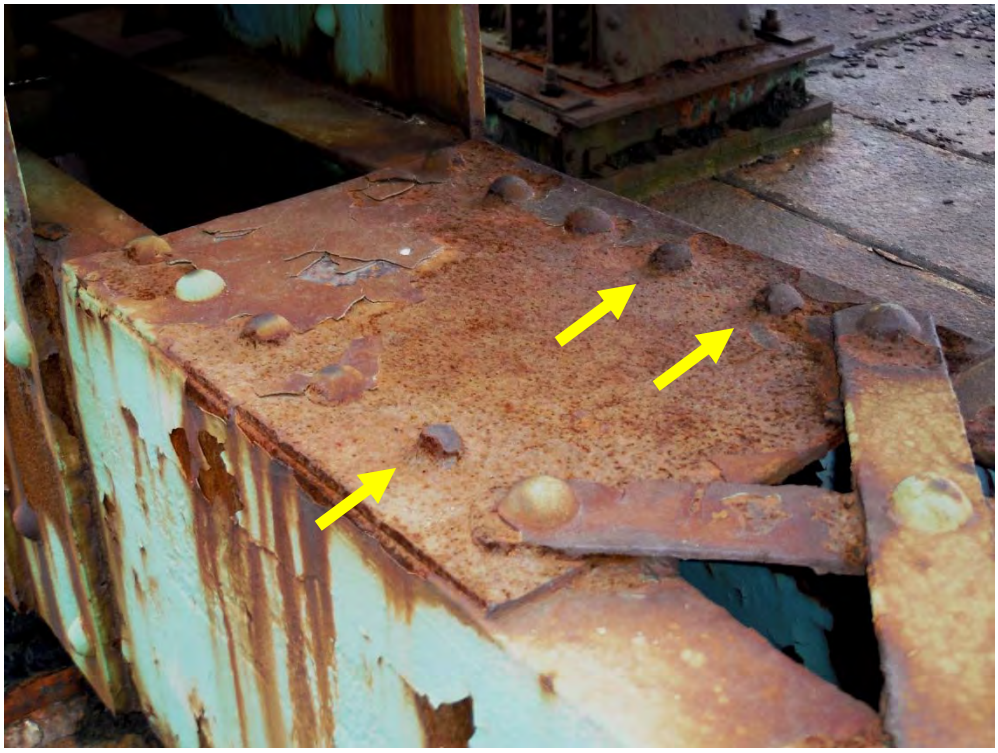


Photo D24: Span 4 – Section Loss at Rivets Heads

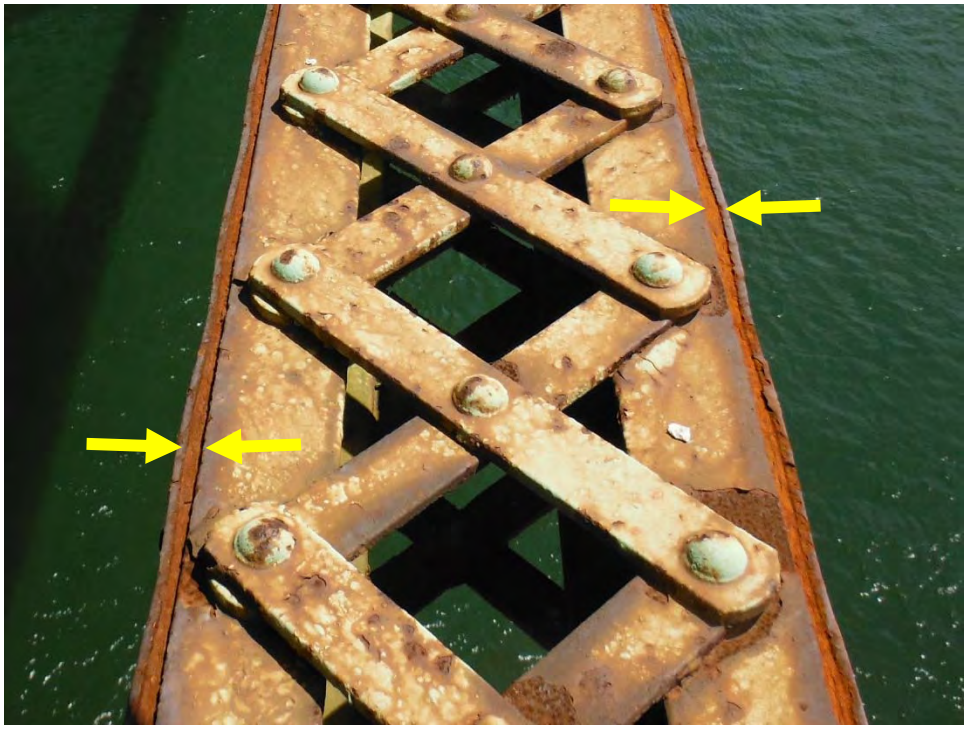


Photo D25: Span 6 – Pack Rust Between Channel and Web Plate

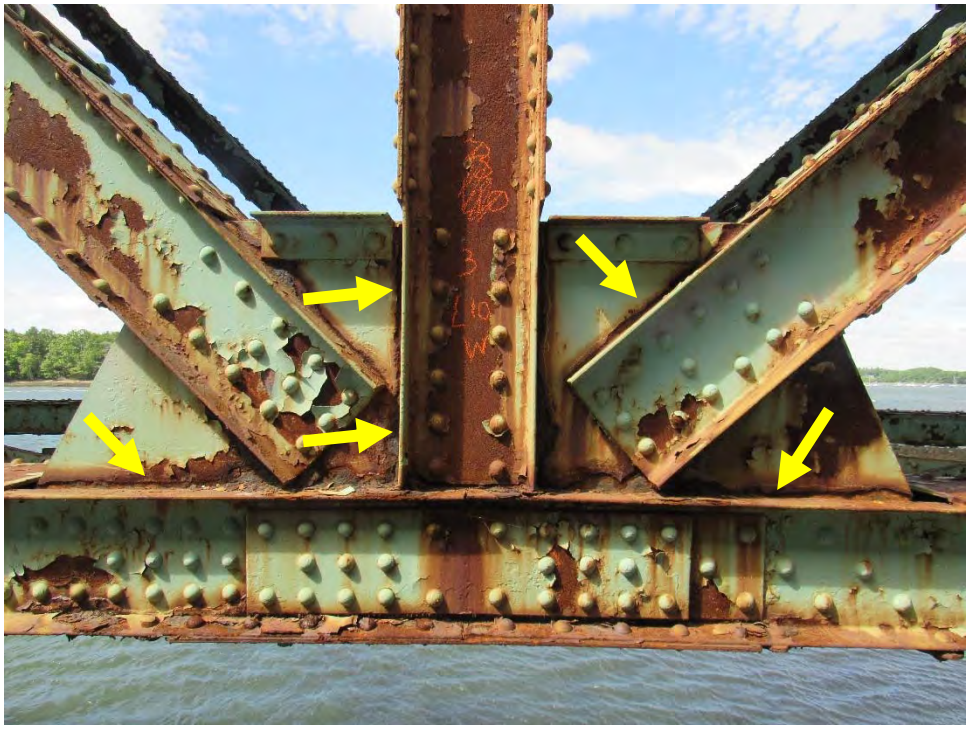


Photo D26: Span 3 Gusset Plate – Section Losses Along Member Connections

Photo D27: Span 2 Gusset Plate – Section Losses at Interior Stiffener/Diaphragms

Photo D28: 2014 Inspection – Span 7 East Member L0L1

Photo D29: 2016 Inspection – Span 7 East Member L0L1 (New Holes and Section Loss)

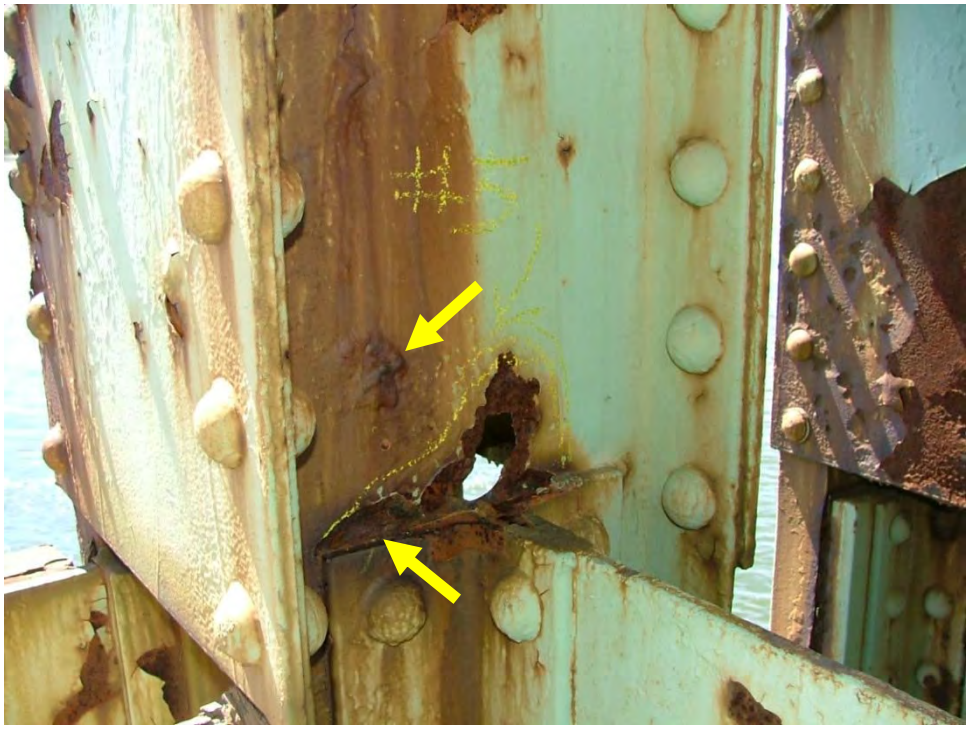


Photo D30: 2014 Inspection – Span 8 West Member L14U14

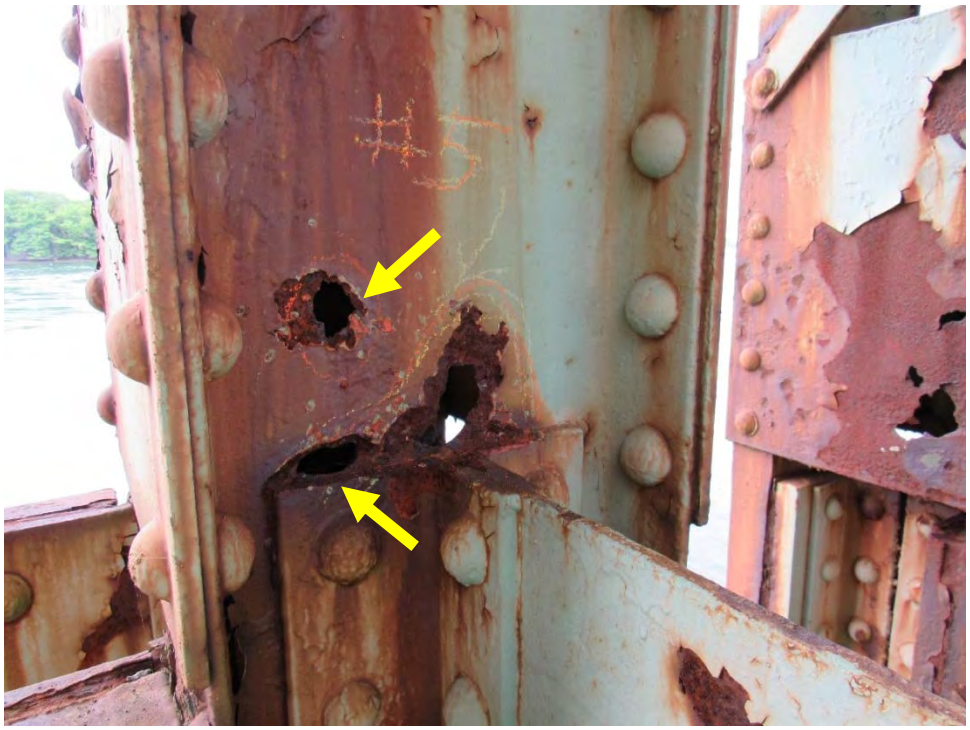


Photo D31: 2016 Inspection – Span 8 West Member L14U14 (New Holes and Section Loss)

Photo D32: 2014 Inspection – Span 7 East Member L8U8

Photo D33: 2016 Inspection – Span 7 East Member L8U8 (New Holes)

Photo D34: Span 4 Member L3U3 – New Hole in Web

Lateral Bracing and Sway Bracing

Lateral bracing and sway bracing members are typically in the same condition from 2014. Bracing members and connection plates adjacent to deck joints are typically in poor condition. Top lateral bracing in Spans 1 thru 3, Span 5, and Spans 7 thru 9 is typically in fair condition. The top lateral bracing in Span 4 and Span 6 is typically in poor condition at the connection plates under the curb openings. Bottom lateral bracing condition varies from fair to poor throughout the bridge.

Bracing member deficiencies generally include:

- Pack rust between double angle lateral and sway bracing members which results in prying or "clam-shelling" between rivets (Photo D35)
- Spans 1 thru 3, Span 5 and Spans 7 thru 9 - Deep pitting and deterioration at lateral bracing connection plates (Photo D36)
- Span 4 and Span 6 – Severe deterioration and section loss at lateral bracing connection plates (Photo D37)
- Deterioration and section loss at lateral and sway bracing members directly adjacent to connection plates (Photo D38)

In 2014, numerous upper lateral bracing connection plates were either deformed or exhibited 100% section loss. A list of these locations is provided in the 2014 inspection report. In 2016, there are five more connection plates in Span 4 and six more connection plates in Span 6 that fell into this category. Of the 28 upper lateral bracing connection plates per span, fifteen in Span 4 and twelve in Span 6 are now in this category.

Photo D35: Span 9 Lower Lateral Bracing – Pack Rust Between Double Angles

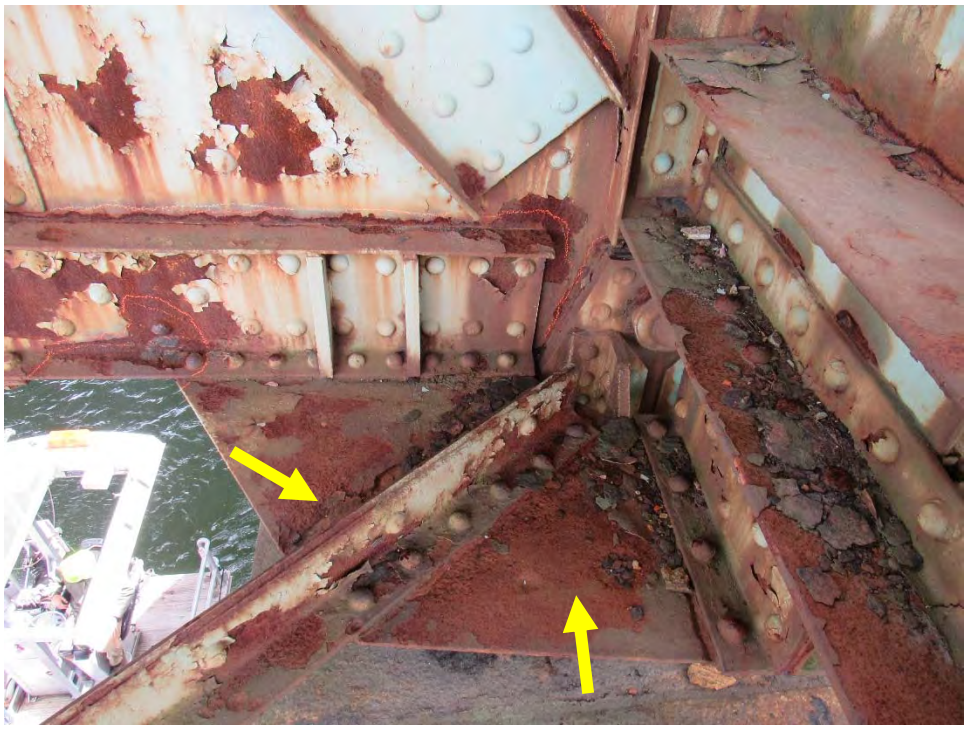


Photo D36: Span 3 Lower Lateral Bracing and Connection Plate Deterioration

Photo D37: Span 6 – Severe Section Loss in Upper Lateral Bracing Connection Plate

Photo D38: Span 8 Lower Strut of Sway Brace – Section Loss at Connection Plate

Bearings

Bridge shoe assemblies are typically in the same condition since 2014. The fixed bearings are in better condition than the expansion bearings.

Bridge shoe deficiencies typically include:

- Deep pitting, deterioration and section loss on the top plate, the upper stay plates and stiffener angles (Photo D39 and Photo D40)
- Bent, loose, “necked-down” and/or heavily deteriorated anchor bolts, nuts, and anchor bolt plate washers (Photo D40 and D41)
- Over-extension of expansion bearings (Photo D41)

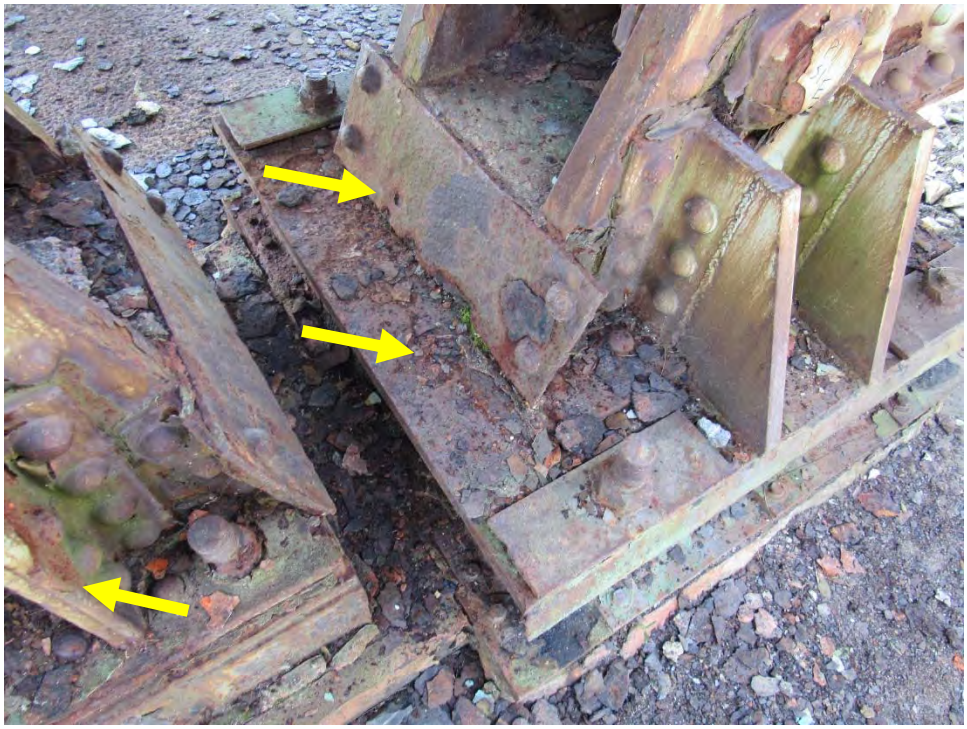


Photo D39: Pier 1 Bearings – Top Plate and Stay Plate Deterioration

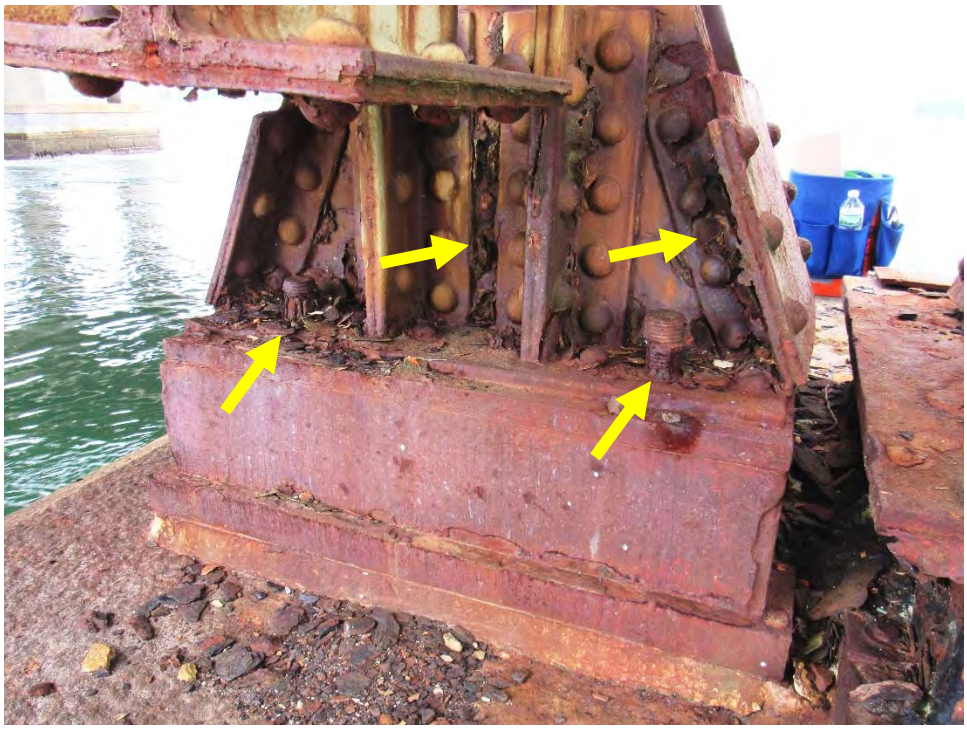


Photo D40: Pier 7 Fixed Bearing – Anchor Bolt and Stiffener Deterioration

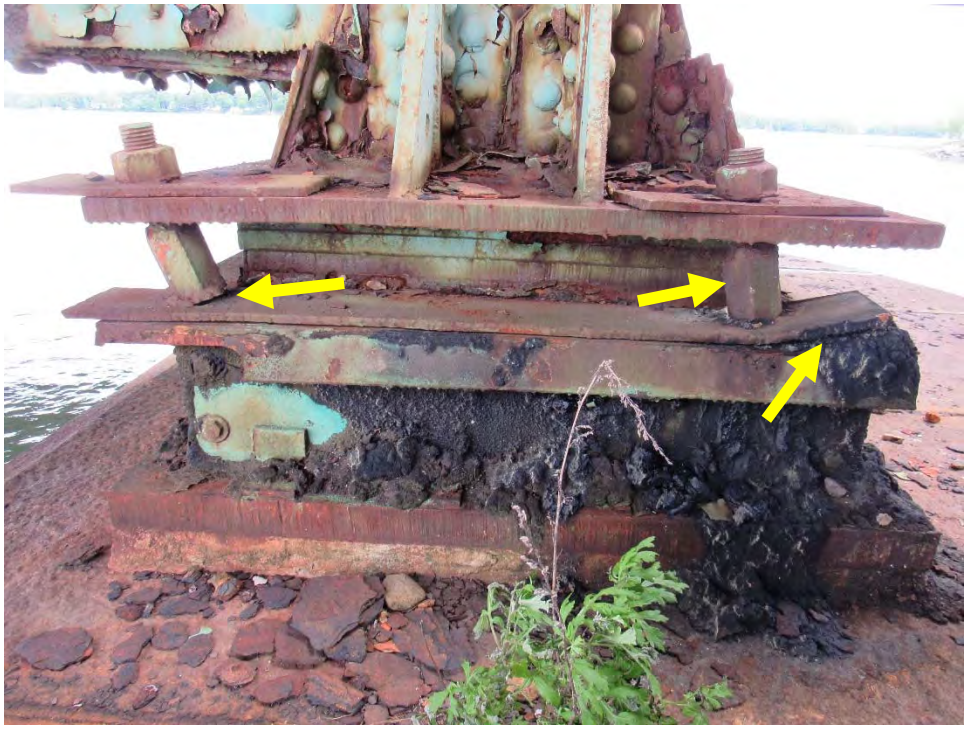


Photo D41: Pier 7 Expansion Bearing – Over-extended With Bent Anchor Bolts

Item 60 Substructure – Fair Condition (5)

Abutments

The abutments are generally in similar condition to 2014. The stub abutment in Dover is in good condition (Photo D42). The vaulted-type abutment in Newington is in fair condition.

Deficiencies noted at the Newington Abutment include:

- Four delaminated areas on the face of the backwall ranging in size from 2 square feet to 27 square feet.
- Stress cracks, up to and 1/8" wide, in the bearing seat below the west bearing (Photo D43) and a horizontal crack, up to a 1/4" wide running along the breastwall at finish grade (Photo D44).

A limited visual inspection of the interior of the Newington Abutment (peering through vent holes in upper backwall) revealed only minor spalling and cracks in the columns and cross-beams supporting the abutment top slab.

Photo D42: Dover Abutment

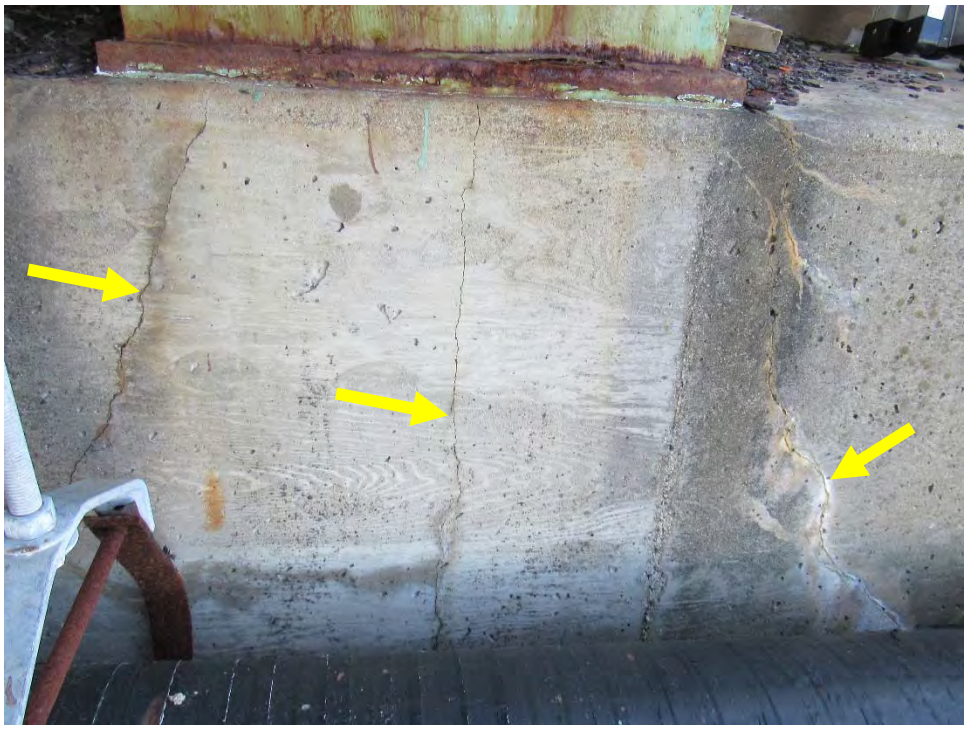


Photo D43: Newington Abutment - Stress Cracks Under West Bearing

Photo D44: Newington Abutment – Horizontal Crack in Breastwall

Piers

The piers are generally in similar condition to 2014. The piers are in fair condition.

Piers exhibit the following deficiencies:

- Pointing/mortar loss between the granite fascia blocks. The majority of the pointing at or below mean sea level has been lost. Pointing above mean sea level is missing sporadically throughout. (Photo D45)
- Sporadic pointing/mortar loss and vegetation growth between the granite blocks that form the pier cap. (Photo D46)

Photo D45: Pier 7 – Missing pointing mortar

Photo D46: Pier 1 – Missing pointing mortar in cap

Other

Utility - Gas Line

One of the two brackets supporting the gas line, which runs in front of the Newington Abutment, has completely deteriorated and broken off. (Photo D47)

Photo D47: Gas Line – Broken Utility Bracket